

**How Are Peer Endorser Characteristics Related to  
Consumer Selfie Attitude?**

**Yufei Huang**

**PhD**

**University of York**

**Business and Society**

**March 2022**

## Abstract

People often post “consumer selfies” on social media. A form of peer endorsement, these are selfies that include identifiable branded products. Companies can leverage consumer selfies for brand-building purposes by reposting them on social media, but selecting the “right” consumer selfies to repost is challenging owing to their overwhelmingly great diversity (Rokka and Canniford, 2016). Moreover, the existing literature on consumer selfies lacks a comprehensive framework that explains how endorser characteristics in consumer selfies predict consumer selfie attitude (CSA). Therefore, drawing upon the attribution-based framework by Kapitan and Silvera (2016), this thesis develops a research model to explain how peer endorsers’ characteristics directly as well as indirectly relate to viewers’ responses through changed endorser authenticity in consumer selfies.

A pre-test led to the selection of 360 consumer selfies from the Instagram accounts of two shoe brands (Puma and Reebok) and two coffee brands (Starbucks and Costa). The data were collected using an online survey of Instagram users in the UK (N=399) and analysed with PLS-SEM.

Results highlight that the characteristics for superficial processing (i.e., endorser attractiveness, endorser-brand fit, and endorser-viewer similarity) directly and positively relate to CSA. Moreover, endorser happiness only indirectly influences CSA through endorser authenticity, whereas endorser-viewer similarity affects CSA partially through endorser authenticity. By contrast, characteristics for deep processing (i.e., conspicuous brand usage and monetary-gain motive) do not have significant relationships with CSA. Lastly, CSA leads to endorsement effects (i.e., consumer selfie engagement, brand attitude, purchase intention).

This study contributes to the literature on the effectiveness of consumer selfies (Nanne et al., 2021), attribution-based framework (Kapitan and Silvera, 2016), and endorser authenticity (Nunes et al., 2021). The results help practitioners leverage consumer selfies in brand promotion on social media.

# Table of Contents

<b>Abstract.....</b>	<b>2</b>
<b>Table of Contents .....</b>	<b>3</b>
<b>List of Tables .....</b>	<b>11</b>
<b>List of Figures.....</b>	<b>13</b>
<b>Acknowledgements .....</b>	<b>14</b>
<b>Declaration.....</b>	<b>15</b>
<b>1. Chapter One: Introduction .....</b>	<b>16</b>
<b>1.1. Research Background.....</b>	<b>16</b>
<b>1.2. Research Gaps .....</b>	<b>18</b>
<b>1.3. Research Goal.....</b>	<b>20</b>
<b>1.4. Methodological Overview.....</b>	<b>25</b>
<b>1.5. Potential Contributions .....</b>	<b>26</b>
<b>1.5.1. Theoretical Contributions .....</b>	<b>27</b>
<b>1.5.2. Managerial Contributions .....</b>	<b>29</b>
<b>1.6. Thesis Structure .....</b>	<b>30</b>
<b>2. Chapter Two: Literature Review .....</b>	<b>32</b>
<b>2.1. Chapter Preview.....</b>	<b>32</b>
<b>2.2. Consumer Selfies .....</b>	<b>32</b>
<b>2.2.1. Research on Selfies.....</b>	<b>32</b>
<b>2.2.2. Introduction to Consumer Selfies.....</b>	<b>33</b>
<b>2.2.3. Research on Consumer Selfie .....</b>	<b>34</b>
<b>2.2.3.1. Consumer Selfie Posters .....</b>	<b>34</b>
<b>2.2.3.2. Impacts on Brand Image .....</b>	<b>35</b>

2.3.3.3. The Effectiveness of Consumer Selfies .....	35
2.2.4. Consumer Selfie Research Gap (Research Gap 1).....	36
<b>2.3. Attribution-Based Framework .....</b>	<b>39</b>
2.3.1. Introduction.....	40
2.3.2 The Dual-process Theory .....	42
2.3.3 Justification for Applying Attribution-Based Model (Research Gap 2).....	44
<b>2.4. Endorsement in Advertising .....</b>	<b>45</b>
2.4.1. Introduction.....	46
2.4.2. Celebrity Endorsement.....	47
2.4.2.1. Celebrity Characteristics .....	47
2.4.2.2. Consumer-Related Characteristics .....	49
2.4.3. Peer Endorsement .....	51
2.4.4. Summary of Endorser Characteristics for Effective Advertisements .....	52
<b>2.5. Brand-Related User-Generated Content .....</b>	<b>55</b>
2.5.1. Introduction.....	55
2.5.1.1. Conceptualizations .....	56
2.5.1.2. Motivations .....	56
2.5.1.3. Visual vs. Textual Br-UGC.....	57
2.5.2. Online Reviews and Social Media Posts.....	60
2.5.2.1. Online Consumer Reviews .....	61
2.5.2.2. Posts on Social Networking Sites .....	63
2.5.2.3. Consumer Reviews vs. Consumer Selfies .....	65
2.5.3. Summary.....	66
Conspicuous Brand Usage .....	67
<b>2.6. Authenticity .....</b>	<b>68</b>
2.6.1. Brand Authenticity .....	69

2.6.1.1. Conceptualisation.....	69
2.6.1.2. Effects of Brand Authenticity .....	70
<b>2.6.2. Human brand authenticity .....</b>	<b>70</b>
2.6.2.1. Perceived Authenticity of Celebrities .....	71
2.6.2.2. Perceived Authenticity of Unknown Spokespeople in Advertisements .....	72
<b>2.7. Application of Attribution-Based Model .....</b>	<b>73</b>
<b>2.7.1. Characteristics for Superficial Processing.....</b>	<b>73</b>
<b>2.7.2. Characteristics for Deep Processing.....</b>	<b>75</b>
<b>2.7.3. Endorser Authenticity as a Mediator.....</b>	<b>76</b>
<b>2.7.4. Endorsement Outcomes.....</b>	<b>77</b>
<b>2.8. Summary.....</b>	<b>78</b>
<b>3. Chapter Three: Hypotheses Development.....</b>	<b>80</b>
<b>3.1. Chapter Preview.....</b>	<b>80</b>
<b>3.2. Endorser Characteristics Related to Consumer Selfie Attitude.....</b>	<b>65</b>
<b>3.2.1. Characteristics for Superficial Processing.....</b>	<b>65</b>
3.2.1.1. Endorser Attractiveness .....	66
3.2.1.2. Endorser-Brand Fit.....	67
3.2.1.3. Endorser-Viewer Similarity .....	67
3.2.1.4. Endorser Happiness .....	68
<b>3.2.2. Characteristics for Deep Processing.....</b>	<b>69</b>
3.2.2.1. Endorser Monetary-Gain Motive .....	70
3.2.2.2. Endorser Conspicuous Brand Usage.....	71
<b>3.3. The Mediating Role of Endorser Authenticity .....</b>	<b>71</b>
<b>3.3.1. Characteristics for Superficial Processing.....</b>	<b>73</b>
3.3.1.1. Factors That Are Not Related to Endorser Authenticity.....	73
3.3.1.2. Endorser-Viewer Similarity .....	74

3.3.1.3. Endorser Happiness .....	75
<b>3.3.2. Characteristics for Deep Processing.....</b>	<b>76</b>
3.3.2.1. Endorser Monetary-Gain Motive .....	76
3.3.2.2. Endorser Conspicuous Brand Usage.....	77
<b>3.3.3. Endorser Authenticity and Consumer Selfie Attitude .....</b>	<b>77</b>
<b>3.3.4. Mediation Effects .....</b>	<b>78</b>
<b>3.4. Consumer Selfie Attitude and Endorsement Effects .....</b>	<b>79</b>
<b>3.4.1. Consumer Selfie Engagement .....</b>	<b>79</b>
<b>3.4.2. Brand Attitude .....</b>	<b>80</b>
<b>3.4.3. Purchase Intention .....</b>	<b>81</b>
<b>3.5 Summary.....</b>	<b>81</b>
<b>4. Chapter Four: Methodology .....</b>	<b>82</b>
<b>4.1. Chapter Preview.....</b>	<b>83</b>
<b>4.2. Rationale for Methodology.....</b>	<b>83</b>
<b>4.2.1. Research Philosophy .....</b>	<b>83</b>
<b>4.2.2. Research Approach and Method.....</b>	<b>84</b>
<b>4.3. Instrument Development.....</b>	<b>85</b>
<b>4.3.1. Stimuli Development.....</b>	<b>85</b>
4.3.1.1. Product and Brand Selection.....	86
4.3.1.2. Consumer Selfie Stimuli Selection .....	87
<b>4.3.2. Questionnaire Development .....</b>	<b>88</b>
4.3.2.1. Measures .....	88
4.3.2.2. Procedure .....	94
<b>4.3.3. Pre-Test: Variance of Endorser Characteristics.....</b>	<b>94</b>
<b>4.4. Population and Sample.....</b>	<b>97</b>
<b>4.5. Ethical Considerations.....</b>	<b>98</b>

<b>4.6. Data Analyses Approach .....</b>	<b>99</b>
<b>4.6.1. PLS-SEM Rationale.....</b>	<b>99</b>
<b>4.6.2. PLS-SEM Approach .....</b>	<b>100</b>
4.6.2.1. The Reflective Measurement Models .....	101
4.6.2.2. The Formative Measurement Models .....	101
4.6.2.3. Common Method Bias Assessment .....	102
4.6.2.4. The Structural Model .....	103
<b>4.6.3. Mediation Analysis.....</b>	<b>104</b>
<b>4.7. Summary.....</b>	<b>105</b>
<b>5. Chapter Five: Data Analyses .....</b>	<b>106</b>
<b>5.1. Chapter Preview.....</b>	<b>106</b>
<b>5.2. Data Collection .....</b>	<b>106</b>
<b>5.3. Participants' Characteristics.....</b>	<b>108</b>
<b>5.4. The Measurement Models .....</b>	<b>109</b>
<b>5.4.1. The Reflective Measurement Models .....</b>	<b>109</b>
5.4.1.1. Reliability.....	109
5.4.1.2. Validity .....	110
<b>5.4.2. The Formative Measurement Models .....</b>	<b>117</b>
5.4.2.1. Multicollinearity and Outer Weights .....	117
5.4.2.2. Nomological Validity.....	118
<b>5.4.3. Common Method Bias Assessment.....</b>	<b>118</b>
<b>5.5. The Structural Model .....</b>	<b>122</b>
<b>5.5.1. Collinearity Assessment.....</b>	<b>122</b>
<b>5.5.2. Structural Model Evaluation .....</b>	<b>123</b>
<b>5.5.3. Structural Model Path Coefficients.....</b>	<b>126</b>
<b>5.6. Mediation Analyses.....</b>	<b>130</b>

5.7. Summary.....	131
<b>6. Chapter Six: Results and Discussion.....</b>	<b>133</b>
6.1. Chapter Preview.....	133
6.2. Summary of Findings .....	133
<b>6.3. Endorser Characteristics Influencing Consumer Selfie Attitude.....</b>	<b>136</b>
6.3.1. Endorser Attractiveness .....	137
6.3.2. Endorser-Brand Fit .....	138
6.3.3. Endorser-Viewer Similarity .....	139
6.3.4. Endorser Happiness.....	140
6.3.5. Endorser Monetary-Gain Motive.....	140
6.3.6. Endorser Conspicuous Brand Usage.....	141
<b>6.4. Limited Influence of Endorser Authenticity .....</b>	<b>142</b>
6.4.1. The Mediating Role of Endorser Authenticity .....	143
6.4.1.1. Endorser Happiness .....	143
6.4.1.2. Endorser-Viewer Similarity .....	143
6.4.2. The Antecedents of Endorser Authenticity .....	144
6.4.3. Endorser Authenticity and Consumer Selfie Attitude .....	145
<b>6.5. Consumer Selfie Attitude and Endorsement Effects .....</b>	<b>145</b>
<b>6.6. Control Variables and Endorsement Effects.....</b>	<b>146</b>
6.6.1. Brand Familiarity and Endorsement Effects .....	146
6.6.2. Image Quality and Endorsement Effects.....	147
6.6.3. The Number of Likes and Endorsement Effects.....	148
6.7. Summary.....	149
<b>7. Chapter Seven: Conclusion.....</b>	<b>150</b>
7.1. Chapter Preview.....	150
7.2. Summary of the Study .....	150



<b>7.3. Theoretical Contributions .....</b>	<b>151</b>
<b>7.3.1. Peer Endorser Characteristics Lead to Effective Consumer Selfies .....</b>	<b>151</b>
7.3.1.1. Effective Peer Endorser Characteristics.....	152
7.3.1.2. Other Factors in Consumer Selfies .....	154
7.3.1.3. The Consumer Selfie Literature .....	155
7.3.1.4. The Endorsement in Advertising Literature .....	156
<b>7.3.2. The Brand-related User-Generated Content Literature.....</b>	<b>158</b>
7.3.2.1. Consumer Reviews vs. Consumer Selfies .....	159
7.3.2.2. Visual vs. Textual Br-UGC.....	160
<b>7.3.3. Empirical Evidence to Attribution-Based Model.....</b>	<b>162</b>
7.3.2.1. Superficial and Deep Processing .....	163
7.3.2.2. The Mediating Role of Endorser Authenticity.....	163
<b>7.3.3. Antecedents of Endorser Authenticity .....</b>	<b>164</b>
<b>7.4. Managerial Contributions.....</b>	<b>164</b>
<b>7.4.1. Applying Consumer Selfies to Brand Promotions .....</b>	<b>165</b>
<b>7.4.2. Selection Strategies for Consumer Selfies.....</b>	<b>166</b>
<b>7.4.3. Productions of Consumer Selfies .....</b>	<b>168</b>
<b>7.4.4. Summary.....</b>	<b>168</b>
<b>7.5. Limitations and Future Research.....</b>	<b>170</b>
<b>Appendices.....</b>	<b>174</b>
<b>Appendix A. Examples of Stimuli.....</b>	<b>174</b>
<b>A.1. Example of Starbucks Stimuli .....</b>	<b>174</b>
<b>A.2. Example of Costa Coffee Stimuli.....</b>	<b>175</b>
<b>A.3. Example of Reebok Stimuli.....</b>	<b>176</b>
<b>A.4. Example of Puma Stimuli.....</b>	<b>177</b>
<b>Appendix B. Pre-Test Questionnaire .....</b>	<b>178</b>

<b>Appendix C. An Example of the Main Questionnaires .....</b>	<b>184</b>
<b>Appendix D. An Additional Test .....</b>	<b>193</b>
<b>Reference .....</b>	<b>195</b>

## List of Tables

Table 1. Overview Research Objectives and Corresponding Hypotheses.....	23
Table 2. Literature review. Research on consumer selfies. ....	37
Table 3. Endorser characteristics determining effective advertisement. ....	54
Table 4. Motivations for posting Br-UGC.....	67
Table 5. The endorser characteristics adopted in the research model of this thesis. ....	78
Table 6. Indicators for constructs.....	92
Table 7. Indicators for constructs in pre-test. ....	95
Table 8. Relative variabilities of independent variables.....	96
Table 9. Sample means and t-test results. ....	107
Table 10. Demographic profile of respondents.....	108
Table 11. Reliability and convergent validity.....	110
Table 12. Indicator loadings and cross-loadings.....	112
Table 13. Fornell and Larcker (1981) criterion. ....	115
Table 14. The heterotrait-monotrait (HTMT) ratio of correlations. ....	116
Table 15. Evaluation of formative measurement model on consumer selfie engagement construct: Indicator weights on consumer selfie engagement and VIF. ....	118
Table 16. Structural estimates between CSE and the other construct in the model.....	118
Table 17. Correlation among all latent variables and marker variable. ....	120
Table 18. Collinearity assessment.....	122
Table 19. Predictive relevance and effect size.....	124
Table 20. Outcome of structural model examination.....	127
Table 21. Mediation analyses. ....	131
Table 22. An overview of research objectives, hypotheses and results. ....	134

Table 23. The relative importance of endorser characteristics to consumer selfie attitude (without mediator). .....	137
Table 24. The relative importance of endorser characteristics to endorser authenticity.....	144
Table 25. Research findings and managerial implications .....	170
Table 26. Outcome of structural model examination in a separate test. ....	193

## List of Figures

Figure 1. An example of consumer selfies on Instagram.....	18
Figure 2. Research overview.....	23
Figure 3. Thesis structure.....	31
Figure 4. Attribution-based framework (Kapitan and Silvera, 2016).....	42
Figure 5. The hypothesized model.....	81
Figure 6. Partialling out of marker variable.....	119
Figure 7. Outcome of the main effects.....	129
Figure 8. Outcome of the separate test.....	194

## **Acknowledgements**

I could not have written this thesis without the expertise, patience, and advice of many great people; I would like to express my sincere gratitude to them.

My first heartfelt gratitude to my supervisors, Prof. Fernando Fastoso, Dr Hector González, Dr Snehasish Banerjee for their support, guidance, and insightful feedback throughout my PhD journey. When I faced difficulties in my first two years, Prof. Fernando Fastoso and Dr Hector González sent me many inspirational emails and had many talks to keep me going. During the last years of my PhD, Dr Snehasish Banerjee, with his kindness and positivity, was always willing to help me with my academic and life issues.

I would also like to thank my thesis committee members, Prof. Victoria Wells, Dr Karolos Papadas and Prof. Nina Reynolds, who gave me comments and suggestions that brought new perspectives and improve my research.

I feel blessed to be surrounded by so many wonderful people. I thank my dear friends and colleagues for sharing their joys and difficulties with me, with them I have gained so much more than the doctoral degree for PhD time in life. Special thanks to some of my close friends Callum Smith and Lingjiao Su, who are always there to keep a sense of perspective through many very darkest, before-the-dawn hours in my PhD journey.

My greatest gratitude goes to my family. To the souls of my grandfathers who both passed away during my study. I wish I could celebrate this achievement with both of them. To my grandmothers whose great virtues go with me in every detail of my life. To my parents, who have showed unwavering love for me and have provided enormous support throughout my life and journey as a PhD.

## **Declaration**

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

# 1. Chapter One: Introduction

## 1.1. Research Background

Owing to the mass adoption of smartphones with cameras and the rapid proliferation of photo-centric social media platforms such as Instagram and Pinterest, sharing photos on social media has become a pervasive phenomenon in modern lifestyles. People often post photos of themselves (i.e., selfies) on social media that include identifiable branded products to share their experiences and communicate with others. Such so-called “consumer selfies” are a type of visual user-generated content (UGC) that companies can employ for brand-building purposes by reposting them on social media platforms (see Figure 1). For example, as of March 2022, there are more than 122 million photos tagged with *Nike* and over 38 million with *Starbucks* on Instagram, the vast majority of which were created and posted by consumers rather than companies. With over 80% of Instagram users using the platforms to research products and services, brand-related UGC has become one of the most powerful tools for social media marketers (TINT, 2021).

The abundance of branded photos from ordinary consumers on social media makes it easy for marketers to find consumer selfies to repost. However, companies are facing the challenge of selecting the “right” consumer selfies, because a few elements have been noticed that might question the benefits of reposting consumer selfies. For example, consumer selfies commonly include elements like lowbrow aesthetics and out-of-place associations, which lead to inconsistency between the images of the brand and the consumer (Rokka and Canniford, 2016, Presi et al., 2016). Moreover, consumer selfie posters tend to be narcissists and materialists who may use conspicuous and glamorous consumption to gain online social capital such as shares, follows, and likes (Sung et al., 2018, Rokka and Canniford, 2016).

Addressing the challenge of selecting beneficial consumer selfies is of utmost importance now due to two reasons. First, many brands (e.g., Nike) are increasingly reposting consumer selfies from ordinary consumers on their Instagram accounts (Geurin and Burch, 2017). Several firms



also have launched social media campaigns to encourage consumer selfies. These include the likes of Starbucks' marketing challenge #redcupcontest (Starbucks, 2016) and Coca-Cola's limited-edition product "selfie bottle" (ThinkMarketing, 2017). The success of such branding efforts and campaigns is partly contingent on selecting the ideal consumer selfies for reposting purposes.

Second, consumer selfies have the potential to contribute to marketplace conversation and shape the brand's image on social media (Presi et al., 2016, Rokka and Canniford, 2016). Since the majority of viewers do not trust contents from online influencers or companies (Mahoney, 2021), peer endorsers are generally considered as the most reliable and trustworthy sources on social media (Jin, 2018). Especially in consumer selfies, peers usually have ordinary and natural looks (Ilicic et al., 2018) and their photos often endow spontaneous and natural aesthetics that are perceived as more credible compared with marketer-generated advertising photos (Colliander and Marder, 2018). Therefore, selecting the ideal consumer selfies to repost on social media can enable firms to make optimal use of this visual UGC.

In sum, this thesis seeks to answer the marketing question: Which types of consumer selfies are beneficial for brands on social media? Built on attribution-based framework (Kapitan and Silvera, 2016), the thesis aims to address this problem by proposing a model of peer endorsers' characteristics directly as well as indirectly related to viewers' responses through changed perception of endorser authenticity. The next section identifies the research gaps in the existing literature and introduces the theoretical framework of this thesis.



**Figure 1. An example of consumer selfies on Instagram**

## **1.2. Research Gaps**

In response to the marketing problem stated in the last section, a few marketing scholars have started to investigate the phenomenon of consumer selfies (Hartmann et al., 2021, Liu and Foreman, 2019, Nanne et al., 2021, Rokka and Canniford, 2016, Sung et al., 2018, Yu and Ko, 2021, Farace et al., 2017). Although some researchers found that consumer selfies may lead to less viewers' enjoyment (Yu and Ko, 2021) brand engagements (e.g., purchase-intent comments) (Hartmann et al., 2021) compared with branded photos without consumers, other research showed that some characteristics of the consumers in selfies (e.g., attractiveness) significantly improve viewer responses and marketing outcomes (e.g., likes intention and brand attitude) (Liu and Foreman, 2019, Nanne et al., 2021). However, in general, the limited prior research on consumer selfies is fragmented and has shown an incomplete picture of the

influences of consumer selfie characteristics. For example, scholars did not consider the effects of other important factors that were found prominent in the qualitative research (Presi et al., 2016, Rokka and Canniford, 2016), such as brand-consumer incongruence and conspicuous brand usage (Ferraro et al., 2013). Conspicuous brand use means that a consumer blatantly uses a brand to get attention (Ferraro et al., 2013), whereas brand-consumer incongruence refers to the inconsistency between the images of the brand and the consumer (Albert et al., 2017). Overall, there is a dearth of empirical studies that examine more holistically the influence of consumer characteristics in consumer selfies (**GAP1**).

On the other hand, consumer selfies are a form of peer endorsement on social media. In the endorsement literature, extensive research has focused on what endorser characteristics account for endorsement effectiveness (Schimmelfennig and Hunt, 2020, Amos et al., 2008, Knoll and Matthes, 2017). Endorsement effectiveness refers to an endorsement's positive influence on viewer perceptions, attitudes, and behaviours towards the endorsed brand (Albert et al., 2017). A theory with which to investigate endorsement effectiveness is Kapitan and Silvera's (2016) attribution-based framework. Regardless of the types of endorsers and platforms, Kapitan and Silvera (2016) suggest that dispositional attributions consumers make about how much an endorser likes, uses, and truly values the endorsed product (i.e., dispositional attribution) are the key to achieving endorsement effectiveness. According to their framework, consumers make dispositional attribution of the endorser through two paths: superficial processing and deep processing (Kapitan and Silvera, 2016). In the superficial processing process, consumers superficially examine the endorsed message and rely on superficial source characteristics (e.g., likeability and good product-endorser fit), which leads to a perception that the endorser truly uses and values the product (Kapitan and Silvera, 2016). In the process of deep processing, individuals carefully process the message, instead, source credibility and trustworthiness are key to inferring that the endorser has an authentic preference for a product (Kapitan and Silvera, 2016). In both processes, dispositional attributions result in more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016). Moreover, Kapitan and Silvera (2016) argue that peer endorsers on social media may particularly benefit from enhanced endorsement outcomes because of their high likelihood of perceived credibility (Jin, 2018) and correspondent inferences (Kim and Lee, 2017). Research on endorsement has empirically validated the mediation role of authenticity derived from Kapitan and Silvera's (2016) attribution-based

framework in the context of celebrity and influencer endorsement (Kapitan et al., 2022). However, research has not examined the model in the context of peer endorsement (**GAP 2**).

### **1.3. Research Goal**

Informed by the problem statement and the research gaps, the research goal is to explain the influences of peer endorser characteristics in consumer selfies on viewers' attitudes and behaviours based on Kapitan and Silvera's (2016) attribution-based framework. Three research objectives are formulated to accomplish the research goal:

**Objective 1:** To determine peer endorser characteristics that are associated with viewers' attitudes toward consumer selfies for superficial processing and deep processing.

**Objective 2:** To examine the mediating role of endorser authenticity on the relationships between peer endorser characteristics and consumer selfie attitude.

**Objective 3:** To examine the relationships between consumer selfie attitude and endorsement effects.

This thesis applies Kapitan and Silvera's (2016) attribution-based framework to the context of consumer selfies. Based on this framework, this thesis argues that social influences of consumer selfies may occur through the superficial processing and deep processing paths. For superficial processing, this thesis examines whether endorser characteristics identified in endorsement advertisement literature, including endorser attractiveness, endorser-brand fit, endorser-viewer similarity, and endorser happiness, also have positive effects with peer endorsers in the context of consumer selfies (Amos et al., 2008, Choi and Rifon, 2012, Kulczynski et al., 2016). Given a consumer selfie photo with few arguments and a busy, distracted consumer, this thesis expects that these positive cues will generate favourable viewer responses to the endorsement and the brands.

For deep processing, this thesis examines the monetary-gain motive proposed by Kim and Lee (2017) and conspicuous brand usage suggested by Ferraro et al. (2013). When viewers cognitively engaged consumers with an endorsement, they tend to infer motives for the endorsing behaviours (Kelley, 1973). Different from the endorsers in advertisements who are paid and intentionally designed to portray a brand in a positive light, peer endorsers promote the brands voluntarily and communicate the actual consumer experiences (Nanne et al., 2021, Presi et al., 2016). For example, peers often post brand-related contents to show off the brands to other consumers (Rokka and Canniford, 2016, Ferraro et al., 2013) and to gain material rewards provided by marketers (Kim and Lee, 2017). Accordingly, this thesis argues that viewers may refer these motives of peer endorsers when they think deeply about consumer selfies.

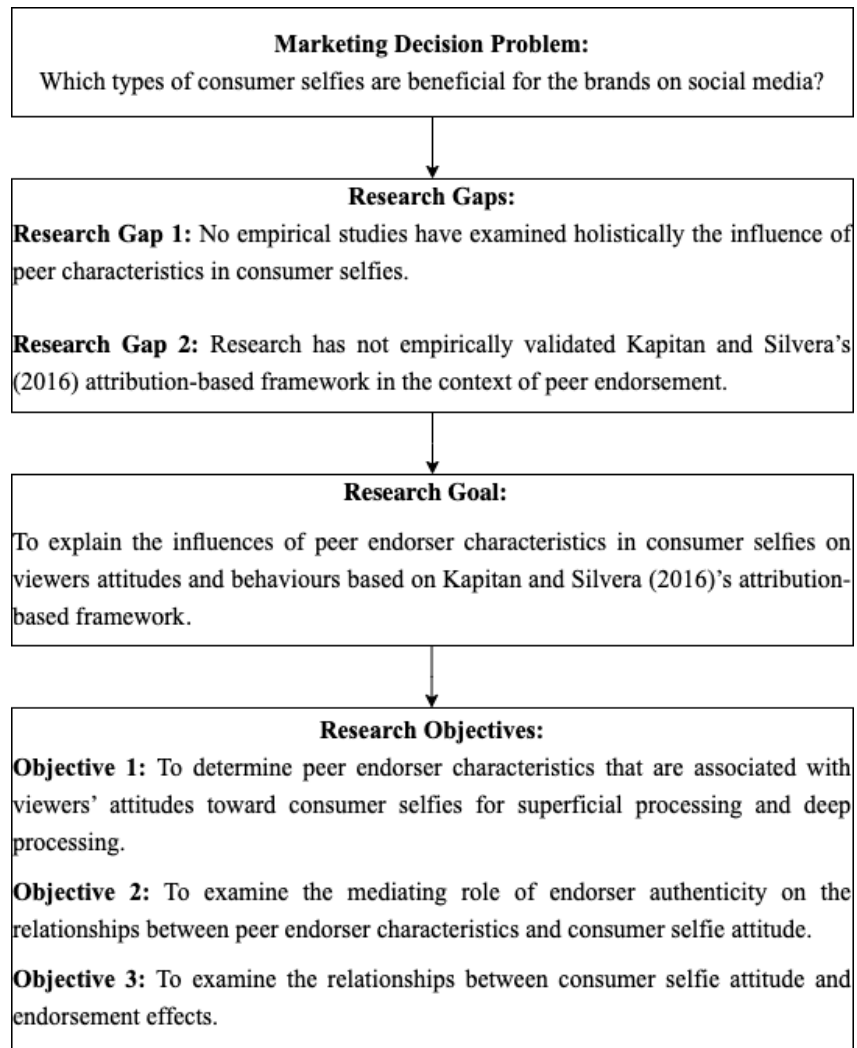
Noticeably, there are two types of brand-related UGC based on the posters' monetary motives, organic and sponsored UGC (Kim and Song, 2018). Sponsored UGC refers to UGC posted for monetary reasons (i.e., paid), while organic UGC is posted voluntarily (i.e., unpaid) (Kim and Song, 2018). This study does not distinguish organic and sponsored consumer selfies when collecting the stimuli samples. This is because whether the posts are paid or unpaid are not always evident, especially when the captions of the posts are left out in this study. This means viewers may be exposed to either paid or unpaid consumer selfies and refer endorsers' monetary motives by themselves.

Based on attribution-based framework (Kapitan and Silvera, 2016), this thesis argues that perceived endorser authenticity as an innate characteristic, which compasses the dispositional attribution, plays the mediator role in consumer selfies. Endorser authenticity represents the perception that one behaves according to their true self and being real and genuine (Ilicic et al., 2018, Moulard et al., 2015). Perceived endorser authenticity has been found to explain the effects of endorsers, such as their looks (e.g., facial features) (Ilicic and Brennan, 2020, Ilicic et al., 2018), actions (e.g., brand mentions) (Jun and Yi, 2020, Hu et al., 2020) and types (e.g., celebrity vs. influencer) (Kapitan et al., 2022), on endorsement outcomes (e.g., brand and ad attitude). This thesis expects endorser authenticity to play a prominent role in the consumer selfie context for the following reasons: First, peer endorsers, compared to paid celebrity endorsers, are generally considered to post brands voluntarily on social media (Jin, 2018, Kim

and Lee, 2017), which thus are more likely to be perceived as authentic. Second, peer endorsers usually have an average and natural look which again intensifies the perceived authenticity (Ilicic et al., 2018). Third, consumer photos often endow spontaneous and natural aesthetics that are perceived as more credible compared to traditional studio aesthetics (Colliander and Marder, 2018), which may highlight authenticity. Based on the existing literature, this thesis posits four characteristics of peer endorsers (i.e., similarity, happiness, monetary-gain motive and conspicuous brand usage) influence viewer attitudes via perceptions of authenticity. By examining the mediating effects, this thesis aims to offer explanations behind the effects of some endorser characteristics on consumer selfie attitudes.

Finally, this thesis conceptualises consumer selfie attitudes as the direct outcome of endorser characteristics as it may transfer other endorsement effects, such as consumer engagement with the contents (e.g., likes and comments) (Shan et al., 2019) and further brand-related outcomes (e.g., brand attitude and purchase intention) (Gong and Li, 2017).

Figure 2 offers an overview of this research. Moreover, Table 1 gives an overview of the research objectives and corresponding hypotheses.



**Figure 2. Research overview**

**Table 1. Overview Research Objectives and Corresponding Hypotheses.**

<b>Research objectives (RO)</b>	<b>Hypotheses (H)</b>
<b>RO 1:</b> To determine peer endorser characteristics that are associated with viewers' attitudes toward consumer selfies for superficial	<b>H1.</b> The perceived attractiveness of the endorser in a consumer selfie is positively related to consumer selfie attitude
	<b>H2.</b> The perceived endorser-brand fit in a consumer selfie is positively related to consumer selfie attitude
	<b>H3a.</b> The perceived similarity between the endorser and the viewer in a consumer selfie is positively related to consumer selfie attitude

<b>Research objectives (RO)</b>	<b>Hypotheses (H)</b>
processing and deep processing.	<b>H4a.</b> The perceived happiness of the endorser in a consumer selfie is positively related to consumer selfie attitude
	<b>H5a.</b> The perceived monetary-gain motive of the endorser in a consumer selfie is negatively related to consumer selfie attitude
	<b>H6a.</b> The perceived conspicuous brand usage by the endorser in a consumer selfie is negatively related to consumer selfie attitude
<b>RO 2:</b> To examine the mediating role of endorser authenticity on the relationships between peer endorser characteristics and consumer selfie attitude.	<b>H3b.</b> The perceived similarity between the endorser and the viewer in a consumer selfie is positively related to perceived authenticity of the endorser
	<b>H4b.</b> The perceived happiness of the endorser in a consumer selfie is positively related to perceived authenticity of the endorser
	<b>H5b.</b> The perceived monetary-gain motive of the endorser in a consumer selfie is negatively related to perceived authenticity of the endorser
	<b>H6b.</b> The perceived conspicuous brand usage by the endorser in a consumer selfie is negatively related to perceived authenticity of the endorser
	<b>H7.</b> The perceived authenticity of the endorser in a consumer selfie is positively related to consumer selfie attitude
	<b>H8.</b> The perceived authenticity of the endorser mediates the influences of (a) perceived endorser-viewer similarity, (b) perceived endorser happiness, (c) perceived endorser monetary-gain motive, and (d) perceived endorser conspicuous brand usage on consumer selfie attitude.
<b>RO 3:</b> To examine the relationships between consumer selfie attitude and endorsement effects.	<b>H9.</b> Consumer selfie attitude is positively related to engagement with the consumer selfie.
	<b>H10.</b> Consumer selfie attitude is positively related to attitude towards the brand.
	<b>H11.</b> Consumer selfie attitude is positively related to purchase intention.

The definition of the key construct in the research model is explained as follows. More details of the conceptualisation of the constructs in this thesis are available in Chapter 3.

**Endorser attractiveness** refers to the extent to which the person is perceived by the observers as possessing an appealing and pleasing physical appearance (Ahearne et al., 1999).



**Endorser-brand fit** refers to the perceived similarity or consistency between the images of the brand and an endorser in an advertisement (Albert et al., 2017).

**Endorser-viewer similarity** refers to the consumer's inference of the similarity between some characteristics of the endorser and characteristics of the consumer (e.g., reality or desire of having the represented lifestyle) (Aaker et al., 2000).

**Endorser happiness** refers to the perceived happy emotions of the endorser.

**Endorser monetary-gain motive** refers to a person's perceived motive to post brand-related content for the purpose of gaining material rewards, such as money, free product samples, or gift cards (Kim and Song, 2018).

**Endorser conspicuous brand usage** refers to a consumer blatantly using a brand to get attention (Ferraro et al., 2013)

**Endorser authenticity** refers to the perception of a person behaving according to their true self, and being genuine and real (Moulard et al., 2015).

**Consumer brand attitude** refers to viewers' attitudes toward the consumer selfies that are exposed.

**Consumer brand engagement** refers to consumers' engagement with the consumer selfies such as like, comment and share (Schivinski et al., 2016).

**Brand attitude** refers to viewers' attitude toward the brand tagged in the consumer selfies that are exposed.

**Purchase intention** refers to viewers' intention to purchase products from the brand tagged in the consumer selfies that are exposed.

## **1.4. Methodological Overview**

This thesis uses a quantitative approach and data were collected through an online survey of consumers in the UK. To develop stimuli that are used in the survey, two brands of sports shoes (i.e., Puma and Reebok) and two coffee brands (i.e., Starbucks and Costa) are investigated. These product categories were chosen because #fashion and #food are two of the most popular hashtags on Instagram, and which consumers commonly featured with in their selfies (Eagar

and Dann, 2016, Liu et al., 2019). The thesis uses consumer selfies from Instagram as stimuli, because Instagram is the most popular visual social media with 1 billion monthly active users (Mohsin, 2019). Specifically, 90 samples per brand (360 in total) stimuli were screenshotted from the most recent posts in the brands' tagged sections (e.g., @puma) on different days during April 2020. Each screenshot of a consumer selfie post includes a consumer selfie photo, the poster's name and profile picture, and the number of likes.

To ensure that the selected stimuli have enough variance across all endorser characteristics, a small-scale survey (N=44) was conducted. As a result, the constructs of consumer selfies characteristics have enough spread of the answers in the pre-test, which indicates that the 360 consumer selfies stimuli that would be employed in the main survey are likely to vary enough to make the survey meaningful.

The survey data for the main study was gathered from Instagram users based in the UK and aged 18-44 recruited via Qualtrics online panels. In the survey, 1 of 90 corresponding consumer selfies was randomly assigned to each respondent such that the selfie stimulus would not repeat to the second respondent until the number of respondents exceeds the number of selfies. After viewing the selfie, respondents then answered questions about endorser characteristics and outcomes of consumer selfies. After purifying the sample using attention checks, 399 valid responses were retained for analyses.

## **1.5. Potential Contributions**

Potential theoretical and practical implications are discussed in light of the results from the research.

### 1.5.1. Theoretical Contributions

This research has the potential to contribute to the literature in a few ways. First, this study contributes to the literature on consumer selfies by examining how various peer endorser characteristics are associated with viewers' attitudes and behaviours in consumer selfies, which filled in the Research **Gap 1** identified previously. Prior studies have found that endorser characteristics, such as selfies with attractive and happy endorsers improve viewer responses (e.g., likes intention and brand attitude) (Liu and Foreman, 2019, Nanne et al., 2021). This study extends these works by testing and identifying other endorser characteristics (e.g., endorser-viewer similarity and endorser-brand fit) that relate to viewers' consumer selfie attitudes. Moreover, a new construct "consumer selfie attitude" was introduced and its relationships with selfie engagement, brand attitude and purchase intention are investigated. Overall, this study takes a more holistic approach to understanding the peer endorsers' characteristics that influence viewer responses to consumer selfies.

Second, this study is the first to empirically test the predictions derived from Kapitan and Silvera's (2016) attribution-based model in the context of consumer selfies, which filled in the research **Gap 2** identified in the previous section. Research on endorsement has empirically validated the mediation role of authenticity derived from Kapitan and Silvera's (2016) attribution-based framework in the context of celebrity and influencer endorsement (Kapitan et al., 2022) but not in the peer endorsement. Based on this framework, this thesis proposes that the social influences of peer endorsers in consumer selfies occur through the superficial processing and deep processing paths. Further, endorser authenticity is proposed to mediate the relationships between endorser characteristics of both paths and viewers' attitudes. Overall, by investigating the influences of peer endorser characteristics for both the superficial and deep processing paths on consumer selfie attitude via endorser authenticity, this research provides empirical evidence for Kapitan and Silvera's (2016) propositions in the context of peer endorsement.

In addition, this research extends the existing literature on authenticity by examining the relationships between endorser characteristics and endorser authenticity. Previous research has

identified that physical appearances, such as asymmetrical facial structure, freckles and moles (Ilicic et al., 2018), direct eye gaze and smile (Ilicic and Brennan, 2020) influence consumers' perceptions of the endorser authenticity. Furthermore, individuals' actions on social media, such as brand mention (Hu et al., 2020), interaction with fans (Jun and Yi, 2020), blunders (Lee et al., 2020) and activism effort (Thomas and Fowler, 2023) also have impacts on perceived authenticity. This study extends prior works by investigating whether endorser-viewer similarity and happiness enhance perceived authenticity, whereas monetary-gain motive of the endorser and conspicuous brand usage dilutes perceived authenticity in consumer selfies. Therefore, the results may enhance the understanding of the endorser authenticity conceptualisation (Moulard et al., 2015, Nunes et al., 2021, Ilicic and Webster, 2016).

Moreover, the literature on endorsement in advertising has undergone a notable transformation, shifting from traditional media to include social media platforms and expanding from celebrity-centric to encompass online influencers (Albert et al., 2017; Gong and Li, 2017; Kulczynski et al., 2016). However, there exists a notable gap in the literature concerning the efficacy of peer endorsement, especially within advertising contexts (Sorum et al., 2003; Thompson and Malaviya, 2013; Munnukka et al., 2016), particularly in the realm of social media. Consumer selfies, functioning as a form of peer endorsement on social platforms, present a genuine and relatable alternative to conventional celebrity endorsements (Presi et al., 2016). Hence, this research has the potential to provide valuable insights into the factors influencing the effectiveness of peer endorsement on social media. Moreover, it may suggest significant theoretical implications for endorsement literature, highlighting the similar and distinct influences of endorser characteristics in peer endorsement compared to celebrity endorsement, especially within the context of social media platforms.

On the other hand, Brand-User Generated Content (Br-UGC) can be divided into two categories based on the platforms where they originate: posts on social media and online reviews. Both types of Br-UGC wield considerable influence over other consumers' perceptions and behaviours regarding brands (Rosario et al., 2016; Hennig-Thurau et al., 2015). While extensive research has delved into the efficacy of online reviews, emphasizing reviewer traits such as reputation, expertise, and identity disclosure as contributors to review helpfulness (Xu, 2014; Liu and Park, 2015), comparatively less attention has been devoted to Br-UGC on

social networking sites, where consumer selfies often take centre stage. Thus, by examining the endorser characteristics that impact the effectiveness of consumer selfies, this study contributes to the underexplored realm of the effectiveness of consumer posts on social media.

Moreover, this thesis examines consumer selfies as a visual form of Br-UGC. Previous studies have demonstrated that visual content enhances message vividness, thereby increasing engagement on social media platforms (Liu et al., 2017; Fang et al., 2018). Visual content, compared to textual content, adds social, emotional, and aesthetic values, which can shape viewers' perceptions and attitudes (Smith and Pyle, 2015). Despite the recognition of the significance of visual Br-UGC in literature, there remains a limited understanding of how specific visual characteristics, particularly human-related factors like recognizable faces in consumer selfies, impact viewers' perceptions and behaviours. Therefore, by investigating the influence of various endorser characteristics in consumer selfies, this thesis has the potential to contribute to the comprehension of visual Br-UGC in literature.

### **1.5.2. Managerial Contributions**

This study has the potential to provide valuable insights for practitioners into the application of consumer selfies in brand promotion on social media. For example, the results confirm that positive attitudes toward consumer selfies lead to positive attitudinal and behavioural judgments toward the brands. Therefore, social media managers can frequently “like” or repost consumer selfies to generate positive responses from their audience. Furthermore, they can use consumer selfies as instruments for e-commerce. For instance, when viewers click on a reposted consumer selfie, they could be given the option to purchase the product being featured.

Moreover, the findings may provide guidance on identifying the consumer selfie types that generate positive viewer responses. For instance, the findings show that peer endorser attractiveness, endorser-brand fit and endorser-viewer similarity are the most influential determinants of viewers' attitudes toward consumer selfies. Accordingly, managers should take priority to selecting consumer selfies featuring consumers who are attractive, congruent with brand image, and similar to other ordinary consumers. Practitioners can consider the roles of

artificial intelligence in selecting consumer selfies. One way to achieve this is to use machine learning methods based on the abovementioned variables with their weights in the results to rate each consumer selfie that tagged the brand.

## **1.6. Thesis Structure**

The thesis consists of seven chapters as illustrated in Figure 3 and explained as follows:

**Chapter One (Introduction)** introduces the research background of consumer selfies, identifies the gaps in the literature and sets the research goal and objectives, which follows with a methodological outline and the potential contributions.

**Chapter Two (Literature Review)** critically reviews the relevant literature on consumer selfies, endorsement in advertising, and brand-related user-generated content. Moreover, it introduces attribution-based framework and discusses how to apply it in this study.

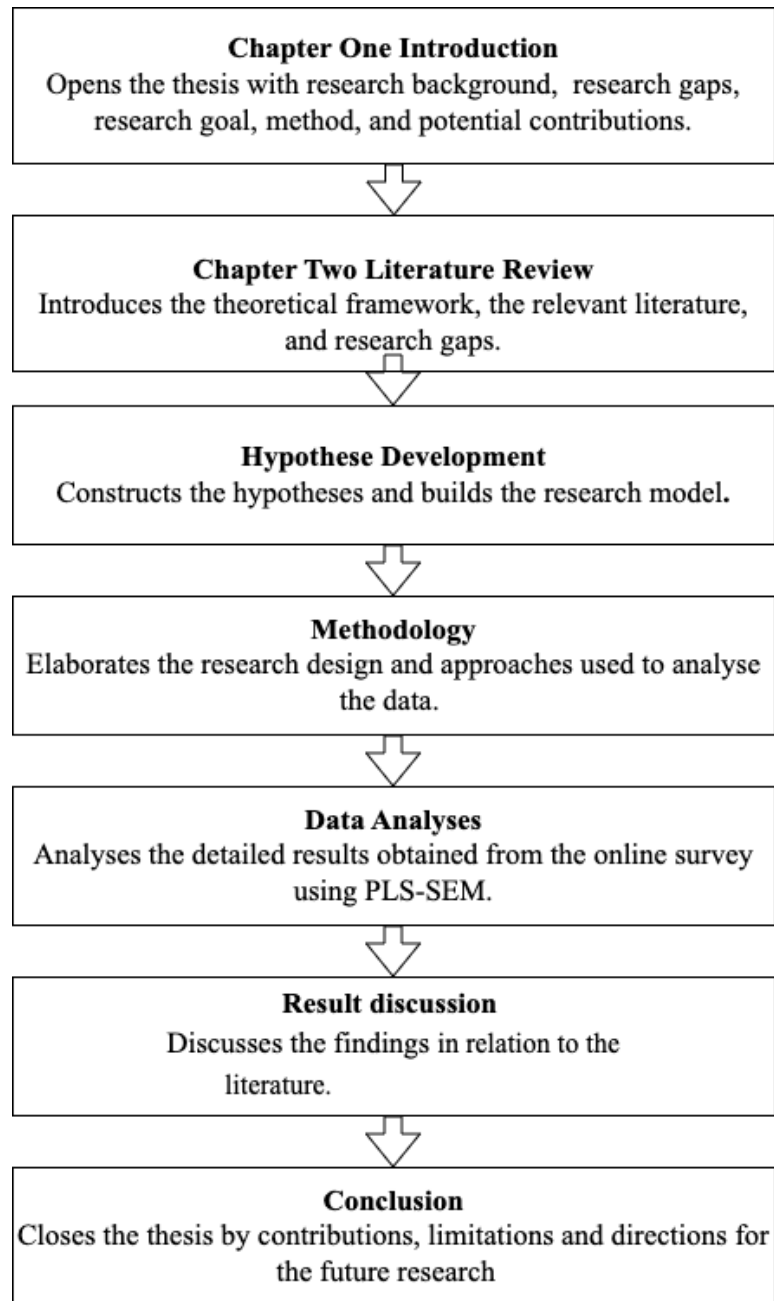
**Chapter Three (Hypotheses Development)** develops the hypotheses which lead to the research model that explains the relationships among peer endorsers' characteristics, endorser authenticity, consumer selfie attitude, and endorsement effects.

**Chapter Four (Methodology)** presents the philosophical stance of the thesis, instrument development, research population and samples, ethical considerations, and approaches used to analyse the data.

**Chapter Five (Data Analyses)** analyses the detailed results obtained from the online survey using PLS-SEM. It offers information on the data collection and cleaning procedures, respondent profiles, the results of the measurement models and the structural model followed by a mediation analysis.

**Chapter Six (Result discussion)** discusses the findings in relation to the literature.

**Chapter Seven (Conclusion)** briefly summarizes the study and discusses its theoretical and managerial contributions. It also points out limitations and makes directions for future research.



**Figure 3. Thesis structure.**

## **2. Chapter Two: Literature Review**

### **2.1. Chapter Preview**

The objective of this chapter is to review the related literature on the main concepts of this thesis that lead to the research model in Chapter 3. The chapter is structured as follows. First, Section 2.2. reviews the related research on consumer selfies and identifies research gaps. Then, Section 2.3. gives an introduction and justification for the theoretical framework applied in this research, i.e., attribution-based framework by Kapitan and Silvera (2016). Next, Section 2.4. discusses the literature on endorsement in advertising. Then, I review the literature on brand-related user-generated content (Br-UGC) in Section 2.5. Moreover, in Section 2.6. the literature on brand authenticity and human brand authenticity are discussed. Section 2.7 describes how the attribution-based framework by Kapitan and Silvera (2016) is applied in this research. Finally, section 2.8. summarises the chapter.

### **2.2. Consumer Selfies**

This section starts with a general review of research on selfies (section 2.2.1.), followed by an introduction to consumer selfies (section 2.2.2.). Then it reviews the existing research on consumer selfies (section 2.2.3.) with an identification of the research gap (section 2.2.4.).

#### **2.2.1. Research on Selfies**

Among all the types of photos people share on social media, one of the biggest trends is that of selfies. Oxford English Dictionary defines Selfie as ‘A photograph that one has taken of oneself, especially one taken with a smartphone or webcam and shared via social media’ (Oxford, 2022). Selfies have become so popular that the word has been named by Oxford Dictionaries as the word of 2013 (BBC, 2013). On Instagram, more than 460 million images are posted with the hashtag #selfie.



Some research focuses on selfies from the perspective of selfie takers. For example, Pounders et al. (2016) found that happiness, good life and physical appearance are the main factors that motivate people to post selfies. Besides, personality traits, such as narcissism and self-esteem, are significantly related to selfie-taking and selfie-editing behaviours (Fox and Rooney, 2015, Fastoso et al., 2021).

Other research focuses on selfies from the perspective of selfie viewers. For example, Diefenbach and Christoforakos (2017) found that viewers tend to disrespect others' selfies because of perceived non-authenticity and narcissism. Moreover, viewing others' selfies leads to decreased self-esteem (Wang et al., 2017). In addition, Farace et al. (2017) found that selfies portraying actions receive more comments.

Apart from general selfies, a particular type of selfies, "consumer selfies", have received increasing attention from marketing scholars because of its potential to contribute to marketplace conversation and challenge companies (Presi et al., 2016, Rokka and Canniford, 2016). The following section discusses in detail the existing research on consumer selfies.

### **2.2.2. Introduction to Consumer Selfies**

Brand-related selfies refer to consumer-generated images featuring both the consumers and the brands. However, researchers do not agree on the conceptualizations and boundaries of the types of brand-related selfies. For example, Presi et al. (2016) use "brand selfies" to refer to photos featuring any parts of the consumers with the brands, including those of which do not prominently feature a person's face but other body parts (e.g., shoe selfies with only legs). By contrast, Hartmann et al. (2021) classified photos featuring invisible consumers (without human faces) holding a branded product as "brand selfies", whereas photos featuring brands and consumer faces as "consumer selfies". According to the purpose of this research where viewers need to evaluate the peer's characteristics in selfies, this study focuses only on photos

with a human face and a branded product. Therefore, I follow the choice by Hartmann et al. (2021) to use the term “consumer selfies” in this thesis.

In addition, conceptually the term “selfie” suggests that the person in the image took the photo themselves. However, in some cases a photograph of oneself can be taken with a webcam or a camera with a self-timer, which looks similar to the cases in which a third person has photographed the person. Therefore, existing brand-related selfie research has classified all images featuring a visible consumer as selfies (Hartmann et al., 2021, Presi et al., 2016, Rokka and Canniford, 2016).

### **2.2.3. Research on Consumer Selfie**

As a relatively new phenomenon, a few marketing scholars have started to investigate the phenomenon of brand-related selfies (Hartmann et al., 2021, Liu and Foreman, 2019, Nanne et al., 2021, Rokka and Canniford, 2016, Sung et al., 2018, Yu and Ko, 2021, Farace et al., 2017). The following sections discuss the findings based on three different themes: the posters, the impacts on brand images and the effectiveness of consumer selfies.

#### *2.2.3.1. Consumer Selfie Posters*

Some researchers examined the posters of brand-related selfies (Rokka and Canniford, 2016, Sung et al., 2018). For example, Sung et al. (2018) empirically identified three traits as predictors of brand-selfie posters: narcissism, materialism, and beliefs that social networking sites are sources of brand information. Moreover, Rokka and Canniford (2016) found that ordinary consumers use consumer selfies to portray themselves with conspicuous and glamorous consumption. Furthermore, selfie posters use popular tag words that enable such photos to be exposed to large audiences on social media, so that they become “microcelebrities” and gain online social capital of intensified shares, follows, and likes (Rokka and Canniford, 2016). As concluded by Presi et al. (2016), consumer selfies add new features to brand experiences and consumer-brand relationships.

### *2.3.3.2. Impacts on Brand Image*

Other studies focus on the influence of consumer selfies on the level of marketplace brand image (Presi et al., 2016, Rokka and Canniford, 2016). Presi et al. (2016) state that brand-related selfies have the potential to shape and change brand image. Through visual content analyses of 250 brand-related selfies, they discovered that consumer selfies offer a peek into the selfie taker's look, lifestyle, and brand experience, which often reveals rich visual details that convey meanings of which the endorser is unaware. Hence, the selfie-takers become part of the process of constructing and deconstructing brand meaning through consumer selfies. In other words, some consumer selfies confirm and reinforce the brand meaning by providing a congruent interpretation of the brands, while others destabilize brands' meaning by delivering heterogeneous elements and meanings. Moreover, Rokka and Canniford (2016) obtained a similar finding by studying a case of three luxury champagne brands, where they found that consumer selfies commonly violate company-established brand images through elements like lowbrow aesthetics and out-of-place associations.

### *2.3.3.3. The Effectiveness of Consumer Selfies*

However, the majority of research has mainly focused on examining the effectiveness of consumer selfies. For example, Hartmann et al. (2021) used machine learning methods to analyse more than a quarter million branded images on social media. The results show that consumer selfies with the presence of consumer faces lead to more image engagement (e.g., likes and comments), but brand selfies without faces (i.e., an invisible consumer holding a branded product) receive more brand engagement (i.e., purchase-intent comments). Through a controlled lab experiment, they demonstrated that self-reference is the underlying mechanism to explain the differential response to different types of consumer selfies. Hartmann et al. (2021) concluded that the presence of consumers in consumer selfies does not have the same effects on brand outcomes in social media as it does in traditional advertising, where the presence of an endorser generally improves the advertising effectiveness such as brand attitude (Xiao and Ding, 2014, Amos et al., 2008). Likewise, Yu and Ko (2021) showed that consumer selfie

images lead to less viewers' enjoyment than those without consumers' faces, which results in less brand attitude and eWOM.

However, other researchers argue that consumer selfies with certain characteristics lead to desirable marketing outcomes (Nanne et al., 2021, Liu and Foreman, 2019, Farace et al., 2017), which might explain why the previous research did not find these effects when looking at the consumer selfies in general. On the one hand, Nanne et al. (2021) found the mere presence of a consumer increased content responses (e.g., like intention) but had no effects on brand responses (i.e., brand attitude). On the other hand, Nanne et al. (2021) demonstrated that a happy consumer selfie leads to significantly higher brand attitude and "likes" than a consumer selfie with neutral facial expression. Therefore, in contrast to Hartmann et al. (2021), Nanne et al. (2021) argued that theories that apply to traditional advertising, such as emotion contagion theory (Hatfield et al., 1993), may also hold up in the context of consumer selfies on social media. Furthermore, a survey of 200 consumer selfies conducted by Liu and Foreman (2019) revealed that four characteristics, namely, physical attractiveness, positive emotion, product experience and social influencer status (i.e., number of followers) positively affect viewers' brand attitude. In addition, Farace et al. (2017) found that selfies portraying actions receive more viewer responses (i.e., comments).

#### **2.2.4. Consumer Selfie Research Gap (Research Gap 1)**

In summary, some studies have questioned the benefits of the general presence of consumers in consumer selfies (e.g., Hartmann et al., 2021), but recent research has shown that some characteristics of the consumers in selfies (e.g., attractiveness) significantly improve viewer responses and marketing outcomes (e.g., likes intention and brand attitude) (Liu and Foreman, 2019, Nanne et al., 2021). The details of the findings of each study are summarised in Table 2, which illustrates that the limited prior research on consumer selfies is fragmented and has shown an incomplete picture of the effects of consumer selfie characteristics. For example, they did not empirically test the effects of other important factors that were found prominent in the qualitative research (Presi et al., 2016, Rokka and Canniford, 2016), such as endorser-brand fit and conspicuous brand usage. Overall, there is a dearth of empirical studies that

examine more holistically the influence of consumer characteristics in consumer selfies (**GAP 1** as mentioned in Chapter 1).

**Table 2. Literature review. Research on consumer selfies.**

<b>Author</b>	<b>Sample, website and brands</b>	<b>Method of analysis</b>	<b>Key findings</b>	<b>Key variables</b>
(Rokka and Cannifo, 2016)	20 brand-related selfies of three luxurious champagne brands on Instagram.	Visual content analysis	Brand-related selfies from ordinary consumers can undermine stable symbolic and material properties of heritage brands.	Endorser-brand fit Conspicuous brand usage
(Presi et al., 2016)	250 brand-related selfies of some leading brands (e.g., Channel, Starbucks, Luis Vuitton) on different social media platforms (e.g., Instagram, Tumblr, Pinterest).	Visual content analysis	Brand-related selfies have the potential to create brand meaning in the social media, which either interfere or reinforce brand images.	Endorser-brand fit
(Liu and Foreman, 2019)	200 brand-related selfies of several brands (i.e., Nike, L’Oreal, McDonalds, and Starbucks) on Twitter.	Survey	Physical attractiveness, positive emotion, product experience and social influence (i.e., numbers of followers) in brand-related selfies positively affect viewers’ brand attitude.	Physical attractiveness Positive emotion Product experience Social influence
(Nanne et al., 2021)	Study 1: more than a quarter-million brand images of 185 brands across ten categories on Instagram and Twitter.	Machine learning and experiment	A happy facial expression in consumer selfies significantly increases like intention and brand attitude. However, the	Endorser’s happy facial expression The general presence of human face

<b>Author</b>	<b>Sample, website and brands</b>	<b>Method of analysis</b>	<b>Key findings</b>	<b>Key variables</b>
	Study 2: 3 artificial Instagram posts of artificial brand Tasty Donuts.		mere presence of a consumer increased content responses (e.g., like intention) but not brand responses (i.e., brand attitude).	
(Hartmann et al., 2021)	3 artificial Instagram posts of a burger	Experiment	Brand-related selfies with the presence of consumer faces leads to more image engagements (e.g., likes and comments), but brand-related selfies without faces (i.e., an invisible consumer holding a branded product) receive more brand engagements (i.e., purchase-intent comments).	The general presence of human face
(Yu and Ko, 2021)	400 Instagram UGC from the top 100 most popular posts of Hermes and Dior	Online survey	Brand-related selfies with the presence of consumer leads to less viewers' enjoyment than those without, which results in less brand attitude and eWOM.	The general presence of human face
(Farace et al., 2017)	3 artificial Facebook posts of water and bread	Experiment	Viewers are more likely to comment on photos displaying action.	Endorser's actions
(Sung et al., 2018)	319 of consumer selfie posters	Online survey	Three traits predict consumer selfie posting behaviours: narcissism, materialism, and beliefs	Narcissism Materialism

Author	Sample, website and brands	Method of analysis	Key findings	Key variables
			that social networking sites are sources of brand information.	Beliefs that social networking sites are sources of brand information.

A key contribution of this research is to take a more holistic approach to understanding the influence of consumer characteristics in consumer selfies. This thesis focuses on consumer selfies as a form of peer endorsement for brands on social media and looks at various characteristics of the peer endorser which may influence viewers. Previous research has proved that factors adopted from advertising literature, such as happy facial expressions, have positive effects on reviewer responses (Nanne et al., 2021). This research takes a step further by testing variables that are argued prominent qualitative consumer selfie research, such as conspicuous brand use and unfit consumer/ brand images, that have not been empirically validated (Presi et al., 2016, Rokka and Canniford, 2016). This thesis argues that these types of characteristics may help marketers to assess and leverage the consumer selfies of ordinary consumers and explain the influence of consumer selfies. Specifically, I classify peer endorser characteristics into two groups for superficial processing and deep processing through the theoretical lens of attribution-based framework by Kapitan and Silvera (2016).

### **2.3. Attribution-Based Framework**

The theoretical framework applied for this research is the attribution-based framework by Kapitan and Silvera (2016). This section includes an introduction to the framework (section 2.3.1.), an introduction of its and a discussion of its predecessor theory, i.e., the dual-process theory (section 2.3.2.). and the application of this framework (section 2.3.3.).

### **2.3.1. Introduction**

This thesis applied an attribution-based framework proposed by Kapitan and Silvera (2016) to examine endorser effectiveness. Their framework suggests that attributions about an endorser about how much an endorser likes and truly values the endorsed product mediate the relationship between source factors and persuasion. Furthermore, the authors argued that regardless of the types of endorsers and platforms, dispositional attribution is the key to achieving endorsement effectiveness. In addition, Kapitan and Silvera (2016) argue that peer endorsers appear authentic might be different from celebrities, but achieving that authenticity via attribution about behaviour and intention is key for peer endorsement.

Their framework is illustrated in Figure 4 and explained as follows: Depending on the different levels of focus factors (e.g., cognitive load, involvement), a consumer thinks carefully or superficially about a message, which leads them to rely on different message elements (e.g., source characteristics, argument strength). The messages are processed via attributions consumers make about the endorser's belief about the brand, which results in outcomes of social influence proposed by Kelman (1961a): (1) identification with the message source through superficial mechanisms such as attractiveness and likeability; (2) internalization of the message content as consumers weigh an endorser's credibility and adopt the message as if it were their own.

Based on these processes of opinion change described by Kelman (1961a): Kapitan and Silvera (2016) summarised two paths of social influences via endorsement. The first path involves consumers identifying with the message source (Superficial processing), while the second path entails internalization of the message content (Deep processing). These paths underscore the nuanced processes through which endorsement can shape consumer attitudes and behaviors, elucidating the intricate dynamics of persuasive communication in contemporary marketing contexts. The details of the two paths are explained as follows



*Superficial processing.* This process is based on a desire to become like an endorser by imitating his or her behaviour, including the use of the endorsed brand. When motivation, ability, or opportunity are lacking, consumers tend to superficially examine the endorsed message and be influenced by superficial source characteristics (e.g., likeability and good product-endorser fit) (Kapitan and Silvera, 2016). Under this condition, superficial positive source characteristics lead to a correspondence bias that the endorser truly uses and values the product (Cronley et al., 1999). This spurs a sense of identification (i.e., the desire to become like an endorser) with the endorsement, hence a more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016).

*Deep processing.* This process instead focuses on the message itself, where consumers internalize a message when they are sufficiently persuaded by the endorser to adopt their product choice. When individuals are highly motivated, have a high ability to process the message, and have a high degree of opportunity to process the message, they tend to carefully process the message and rely less on superficial source characteristics. Instead, perceptions of source credibility, honesty and trustworthiness are key to inferring that the endorser has an authentic preference for a product (Kapitan and Silvera, 2016). As a result, dispositional attributions resulting from cognitive engagement can lead to internalization (i.e., message comprehension and adoption) more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016).

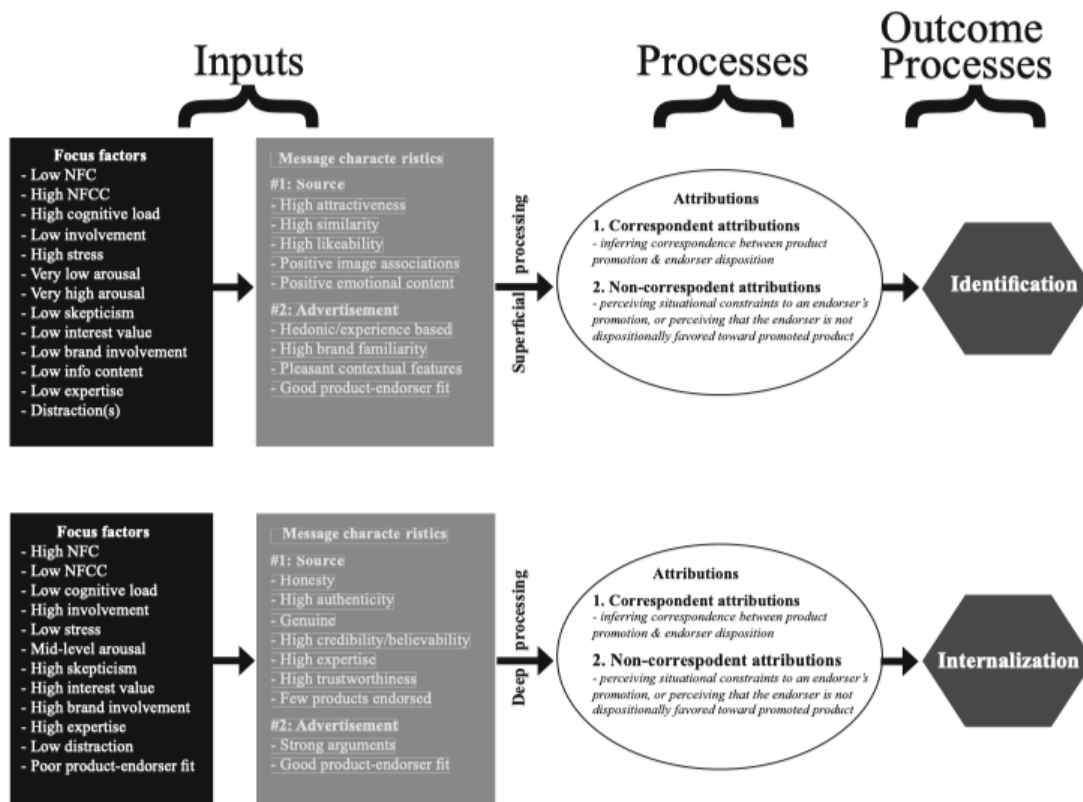


Figure 4. Attribution-based framework (Kapitan and Silvera, 2016)

### 2.3.2 The Dual-process Theory

The attribution-based framework, delineating two processing paths—superficial and deep—derives its theoretical underpinnings from the dual-process theory, a fundamental concept extensively applied in the realm of online reviews (Kapitan and Silvera, 2016). This theoretical construct draws upon established models such as the Elaboration Likelihood Model (ELM) and the Heuristic-Systematic Model (HSM), which elucidate the intricate mechanisms underlying human information processing (Petty and Cacioppo, 1986, Chaiken et al., 1989).

The ELM, expounded by (Petty and Cacioppo, 1986), delineates two distinct routes through which attitude change occurs: the central route and the peripheral route. Central processing entails a thorough and critical evaluation of information, necessitating cognitive effort and engagement (Petty and Cacioppo, 1986). Conversely, peripheral processing involves less cognitively demanding mechanisms, whereby the influence of message context and peripheral

cues shapes individuals' attitudes and perceptions (Petty and Cacioppo, 1986). Within this framework, the term "elaboration" encapsulates the process by which individuals augment and scrutinize messages, going beyond mere content encoding to engage in rigorous evaluation (Petty & Wegener, 1999).

In contrast, the Heuristic-Systematic Model (HSM) posits two modes of information processing: systematic and heuristic. Systematic processing entails a comprehensive examination of available information, characterized by careful scrutiny and intensive reasoning (Chaiken et al., 1989). Conversely, heuristic processing relies on mental shortcuts and heuristics, necessitating less cognitive effort and often leading to quicker, albeit less thorough, evaluations (Chaiken et al., 1989).

The trade-off hypothesis, proposed within the context of the ELM, suggests that both central and peripheral route processes may influence evaluations irrespective of elaboration level (Petty and Cacioppo, 1986). Transitioning to higher elaboration likelihood attenuates the impact of peripheral route processes while augmenting central route processing, and vice versa (Petty and Cacioppo, 1986). However, it is crucial to note that processing route does not necessarily dictate differential outcomes; individuals may arrive at similar decisions despite being influenced by disparate processing routes (Bhattacharjee and Sanford, 2006, Allison et al., 2017).

In the domain of online reviews, scholars often conceptualize review quality as representative of central/systematic processing, whereas source credibility and review quantity are construed as peripheral/heuristic cues (Cheung and Thadani, 2012). This nuanced framework enhances our understanding of how consumers navigate online information, discerning between central and peripheral cues to inform their purchasing decisions. However, in the domain of other types of Br-UGC, limited research has investigated how the dual-process theory works in the context such as consumer selfies.

### **2.3.3 Justification for Applying Attribution-Based Model (Research Gap 2)**

Previous research on endorsement has empirically validated the mediation role of authenticity derived from Kapitan and Silvera's (2016) attribution-based framework in the context of celebrity and influencer endorsement (Kapitan et al., 2022). Based on the framework, Kapitan et al. (2022) demonstrate that the perception of authenticity mediates the impact of endorser type (celebrity vs. influencer) on consumers' willingness to pay for an endorsed product. However, no research has empirically examined attribution-based framework (Kapitan and Silvera, 2016) in the context of peer endorsement (**GAP 2** as mentioned in Chapter 1).

This thesis aims to apply this framework to the context of consumer selfies and investigate the endorsement effectiveness of peer consumers. Consumer selfies are a form of peer endorsements on social media, which is akin to unknown spokespersons promoting a brand in advertising. They are both images of brand endorsements where the former includes unknown peers endorsing brands on social media whereas the latter unknown spokespersons promoting brands in magazines. Nanne et al. (2021) obtained similar findings of peer endorsers in consumer selfies to the endorsers in traditional advertising (Kulczynski et al., 2016), where happy endorser has positive effects on brands compared to neutral endorsers. Moreover, they argue that theories that apply to traditional advertising research, such as the emotion contagion theory (Hatfield et al., 1993), might also hold up in consumer selfies on social media.

However, Kapitan and Silvera (2016) argue that the theoretical models for paid-by-brand endorsements remain effective but need to be adjusted for the emerging role of earned endorsements, such as recommendations from ordinary consumers. Hence, this thesis argues that endorsers in consumer selfies are different from those in conventional endorsement advertisements in terms of their motives: Endorsers in advertisements are paid and intentionally designed to portray a brand in a positive light; by contrast, peer endorsers promote the brands voluntarily and communicate the actual consumer experiences (Nanne et al., 2021, Presi et al., 2016). Therefore, it is important to consider the perceived motives of peer endorsers when applying advertising theories in the context of consumer selfies.

This thesis employs attribution-based model because the processing paths and mediator included in the framework illustrated the core interests of the research: First, this model considers characteristics for superficial processing path that is particularly relevant to consumer selfies. Social media viewers tend to process contents superficially (Kapitan and Silvera, 2016), thus simple clues such as attractiveness and happiness, must be highlighted when studying endorser characteristics in consumer selfies. Second, this model considers the characteristics for the deep processing path, which addresses the factors regarding the perceived motives of peer endorsers. When viewers process carefully about consumer selfies, they may infer motives for the endorsing behaviours (Kelley, 1973). Therefore, common motives for posting consumer selfies need to be taken into considerations, such as showing off the brands to other consumers (Rokka and Canniford, 2016, Ferraro et al., 2013) and gaining material rewards (Kim and Lee, 2017). Last, attribution-based framework emphasises the underlying mechanism of endorsement effectiveness, that is, the perceived authenticity about the endorser. According to Kapitan and Silvera (2016), peer endorsers on social media may particularly benefit from enhanced endorsement outcomes because of their high likelihood of perceived credibility (Jin, 2018) and correspondent inferences (Kim and Lee, 2017). Accordingly, perceived authenticity is of great relevance in consumer selfies, which may help understand the peer endorsement mechanism within a consumer selfie context.

Applying attribution-based framework, this thesis proposes that peer endorser characteristics for both superficial processing and deep processing paths lead to endorsement effects via the perception of authenticity. The following chapters give a review of the relevant literature where specific variables are identified.

## **2.4. Endorsement in Advertising**

To investigate the endorser characteristics that may be relevant to consumer selfies, this chapter begins with a broad introduction to endorsement in marketing, both in practical applications and within the literature (section 2.4.1). The following sections review the theories and factors

in celebrity endorsement (section 2.4.2) and peer endorsement literature (section 2.4.3). Finally, it reviews the endorser characteristics studied and related theories in section 2.4.4.

### **2.4.1. Introduction**

Much of the marketing literature highlights the prevalence of celebrity endorsements in advertising, with statistics indicating that approximately 25%-30% of advertising in Western countries involves celebrity endorsers, while the figures rise to 70% in Japan and 75% in South Korea (Schimmelfennig, 2018, Kang, 2020). Advertisements commonly feature celebrities such as well-known actors, musicians, and athletes. Celebrity endorsers are defined as people who have high degree of public recognition and are used for product promotion (Schimmelfennig, 2018, McCracken, 1989).

Furthermore, there is a growing trend of consumers following celebrity endorsements and reviews on social media platforms in addition to traditional television and magazine ads (Kapitan and Silvera, 2016, Gong and Li, 2017). Consequently, marketers are increasingly allocating budgets to social media marketing efforts, with projections indicating that social media advertising is expected to reach \$263 billion by 2028 (BYERS, 2023).

This shift towards social media marketing underscores the evolving landscape of advertising and the importance of leveraging celebrity endorsements in reaching and engaging with consumers across various platforms. As such, understanding the dynamics of celebrity endorsement strategies and their impact on consumer behavior is crucial for marketers looking to maximize the effectiveness of their advertising campaigns in today's digital age.

In the endorsement literature, an extensive stream of research in advertising has focused on endorsement by studying what endorser characteristics account for effectiveness in advertising (Schimmelfennig and Hunt, 2020, Amos et al., 2008, Knoll and Matthes, 2017). Endorsement effectiveness is defined as an endorsement's positive influence on viewer perceptions, attitudes, and behaviours towards the endorsed brand (Albert et al., 2017). It is usually captured by three

constructs: attitude towards advertisement, brand attitude and purchase intention (Gong and Li, 2017, Choi and Rifon, 2012).

Over the course of fifty years of research on celebrity endorsement, scholars have developed four major theories that seek to explain the mechanisms behind celebrity endorsements: source credibility, source attractiveness, match-up hypothesis, and meaning transfer model, each with its corresponding constructs (Schimmelpfennig and Hunt, 2020). The subsequent sections will provide detailed introductions to these theories and their constituent concepts.

## **2.4.2. Celebrity Endorsement**

The most common type of endorsements in advertising involves celebrities as endorsers, including traditional celebrities (e.g., actors) and online celebrities (i.e., online influencers). The recent research on endorsement has extended from traditional media to social media and from traditional celebrities to online influencers (e.g., Gong and Li, 2017, Shan et al., 2019). Moreover, early works in the literature have focused on the impact of celebrities' own characteristics (e.g., credibility, attractiveness, and celebrity-brand congruence) on endorsement effectiveness (e.g., Fleck et al., 2012, Erdogan, 1999, Amos et al., 2008). By contrast, more recent works have shifted to explore the effects of characteristics that involved consumers as an active role in endorsement (e.g., endorser-consumer congruence, endorser-consumer parasocial interaction) (e.g., Gong and Li, 2017, Albert et al., 2017). Therefore, the following sections discuss the literature on these two types of characteristics: celebrities' own characteristics and characteristics related to consumers.

### *2.4.2.1. Celebrity Characteristics*

Three fundamental models are generally employed to explain the determinants of an effective endorser: source credibility model, source attractiveness model and the match-up hypothesis (Erdogan, 1999, Kamins, 1990).

First, source credibility model posits that the effectiveness of endorsement depends on the credibility of an endorser, which incorporates two dimensions: expertise and trustworthiness (Erdogan, 1999, Amos et al., 2008). Trustworthiness refers to the perceived honesty, integrity, and believability of the endorser in providing information, whereas expertise refers to the perceived competence or authoritative nature of the endorser in the related field (Ohanian, 1990). In the context of celebrity endorsement, consumers can evaluate these characteristics through celebrities' professions and reputations reported in the media (McCracken, 1989). Although expertise and trustworthiness both significantly contribute to celebrity credibility, they make independent contributions to endorsement effectiveness (Amos et al., 2008, Schimmelpfennig and Hunt, 2020). For instance, Priester and Petty (2003) emphasised the positive persuasive impacts of trustworthy endorsers and the negative influences of untrustworthy endorsers on advertising effectiveness. On the other hand, Siemens et al. (2008) stressed the significance of perceived endorser expertise, including their product expertise and profession expertise, on endorsement effectiveness.

Second, source attractiveness model suggests that the physical attractiveness of endorsers has a positive influence on endorsement effectiveness (Erdogan, 1999, Till and Busler, 2000, Amos et al., 2008). Although Erdogan (1999) argued that attractiveness means not only having physical beauty but also having virtuous characteristics (e.g., intellectual skills and personality). Subsequent studies, despite exceptions (e.g., Torres et al., 2019), have mainly concentrated on the physical aspect of endorser attractiveness and its positive effects (Till and Busler, 2000, Gong and Li, 2017). Extensive evidence from meta-analyses of celebrity endorsement literature shows that celebrity attractiveness has a salient positive effect on endorsement effectiveness (Amos et al., 2008, Erdogan, 1999). However, more recent research found that, on social media, celebrity attractiveness has nonsignificant relationships with endorsement effectiveness because of its reduced effects on attracting audiences' attention (Gong and Li, 2017). Instead, factors such as celebrity-consumer interactions, become more prominent in the social media celebrity endorsement (Gong and Li, 2017).

Third, the match-up hypothesis holds that a good match-up between an endorser and a product is more effective in advertising than a bad fit (Kamins and Gupta, 1994, Erdogan, 1999, Amos et al., 2008). In the endorsement literature, product-endorser congruence has been well-



documented as a critical driver of advertisement effectiveness (Amos et al., 2008, Knoll and Matthes, 2017, Erdogan, 1999). For instance, a general image match between the celebrity and the endorsed product lead to effective print advertisements (Choi and Rifon, 2012). Moreover, the congruence between the brands and specific endorsers' features, such as their physical appearance, expertise (Till and Busler, 2000), names (Ilicic et al., 2015) and personalities (Albert et al., 2017) also have positive effects on advertisement effectiveness.

#### *2.4.2.2. Consumer-Related Characteristics*

In addition to celebrities' own characteristics where consumers are passive endorsed content spectators, more recent research has started to focus on the consumer-related characteristics where consumers take active roles in the celebrity endorsements (Albert et al., 2017).

First, consumer-celebrity image congruency has been found to increase endorsement effectiveness (Albert et al., 2017, Choi and Rifon, 2012). For example, Choi and Rifon (2012) argued that the consumers' perception of the celebrity matches his or her ideal self-image induces effective celebrity endorsement. This can be explained by the identification process from Kelman's (1961b) social influence theory. Identification occurs when a person adopts behaviour from another person or a group in order to match one's self-image. Accepting influence through identification is a way to establish or maintain the desired relationship with others, which in turn provides a satisfying self-image. Consumer's identification with an endorser leads to various endorsement outcomes such as positive advertisement attitude, brand attitude, engagement with brand content, and purchase intention (Shan et al., 2019, Aaker et al., 2000)

Second, consumer-celebrity parasocial interaction has been found crucial to achieving social media celebrity endorsement success (Jin, 2018, Gong and Li, 2017, Jin and Ryu, 2020). Parasocial interaction (PSI) refers to one-way interpersonal interaction between the audience and media figure, and it occurs when the audience develops the illusion of intimacy with media figures (Horton and Richard Wohl, 1956). PSI between celebrities and audience is strengthened on the social media platforms, because the minute-to-minute updates of personal information

posted by celebrities make the audience feel like they know the celebrities personally (Gong and Li, 2017). Furthermore, the instant comment and repost function make the audience feel they can directly communicate with the celebrity (Gong and Li, 2017). According to Hovland–Yale persuasion model (Hovland et al., 1953), the audience’s interpersonal involvement with the communicator is crucial for the persuasion effects (Gong and Li, 2017). For instance, Gong and Li (2017) found that PSI is not only a salient antecedents of endorsement effectiveness but also serves as a mediator of the effect of source attractiveness on endorsement effectiveness on social media. Thus, Gong and Li (2017) concluded that PSI is an essential part of the celebrity endorsement mechanism on social media.

In addition, Kulczynski et al. (2016) demonstrated that an endorser’s smiling facial expression leads to consumers’ happy feelings, which enhances advertising effectiveness. Specifically, viewer’s positive emotional response mediates the relationship between the endorser’s happy emotion and advertising outcomes (i.e., attitude toward an advertisement, attitude toward a brand, and purchase intention). This can be explained by emotional contagion theory (Hatfield et al., 1993), which states that people automatically experience the same emotion as they observe from the other person.

In summary, the landscape of endorsement in advertising has evolved significantly, transitioning from traditional media to encompass social media platforms and from relying solely on celebrities to incorporating online influencers. Early research predominantly focused on the impact of celebrities’ own characteristics, such as credibility, attractiveness, and congruence with the endorsed brand. However, recent studies have expanded to investigate the influence of consumer-related characteristics, where consumers actively participate in the endorsement process.

Consumer selfies as a form of peer endorsements are intricately linked to the evolution of endorsement in advertising, especially on social media platforms. While traditional research focused on celebrities as endorsers, recent studies have shifted towards consumer-related characteristics, reflecting active consumer participation in endorsements (Albert et al., 2017). Consumer selfies represent a departure from traditional celebrity-centric endorsements towards

more interactive and relatable endorsement strategies, reflecting the changing landscape of advertising in the digital age (Albert et al., 2017; Gong and Li, 2017; Kulczynski et al., 2016).

### **2.4.3. Peer Endorsement**

Advertisers have used ordinary spokespeople as endorsers in their advertisements to create realism (Ilicic et al., 2018). The term “peer endorser” refers to ordinary consumers who are usually portrayed as typical users of the product in the advertisement (Friedman et al., 1976). Compared to celebrities, ordinary peer endorsers are a more cost-effective option, which can avoid the risk of overexposing and celebrity negative information (e.g., scandals) (Ilicic et al., 2018, Amos et al., 2008). Nevertheless, the majority of endorsement research has focused on traditional celebrities (e.g., Jin and Phua, 2014) and online celebrities (i.e., online influencers) (e.g., Torres et al., 2019) on both traditional media and social media. Limited studies have examined peer endorsement effectiveness.

The existing research on peer endorsed advertising has emphasised the role of endorser similarity in advertising effectiveness (e.g., Sorum et al., 2003). It be explained by social identity theory (Tajfel et al., 1979), when consumers identify with a social group, they develop in-group favouritism and conformity to maintain favoured social identities and meet self-verification goals (Turner et al., 1979, Escalas and Bettman, 2003). For example, Sorum et al. (2003) found that people tend to refer similar peer endorsers to have actual affection for product as motivating the endorsement, which in turn predicts effective peer endorser advertising. Thompson and Malaviya (2013) demonstrated that consumers’ perceived similarity to the peer increase advertising effectiveness by hindering scepticism and heightening identification with the peer. Moreover, Munnukka et al. (2016) identified that peer endorsers’ trustworthiness, expertise, similarity and attractiveness in advertisements contribute to advertisement attitude.

Moreover, the other stream of research focuses on the effects of facial features of unknown spokespeople on the effectiveness of print advertisements (Ilicic et al., 2016, Ilicic et al., 2018, Xiao and Ding, 2014). For example, Ilicic et al. (2018) showed that facial symmetry has a

negative influence on advertisement effectiveness because of reduced perceived endorser authenticity.

In summary, advertisers often opt for ordinary individuals as endorsers to boost authenticity, known as "peer endorsers," offering a cost-effective alternative to traditional celebrities while minimizing associated risks (Ilicic et al., 2018; Amos et al., 2008). However, despite their potential, research on peer endorsements significantly lags behind that of celebrity endorsements. There remains a gap in understanding how peer endorsements work, especially in the context of social media.

Consumer selfies serve as a form of peer endorsement wherein ordinary individuals showcase products or brands in their everyday lives. Unlike traditional celebrity endorsements, which may feel distant or unattainable to some consumers, peer endorsements through selfies can feel more relatable and authentic (Presi et al., 2016). Examining the effectiveness of consumer selfies as peer endorsements can shed light on the factors that influence consumer trust, engagement, and purchase intentions.

#### **2.4.4. Summary of Endorser Characteristics for Effective Advertisements**

Overall, the previous sections have laid the groundwork for understanding the dynamics of endorser characteristics in the context of consumer selfies. Table 3 summarises the endorser characteristics that have been identified as determinants of effective advertisement in the celebrity and peer endorsement literature, explained as follows.

The effectiveness of celebrity endorsements is often explained through three fundamental models: the source credibility model, the source attractiveness model, and the match-up hypothesis. These models emphasize the significance of endorser credibility, attractiveness, and congruence with the endorsed product or brand in driving advertising effectiveness (Erdogan, 1999; Amos et al., 2008).

Moreover, recent research has shed light on the role of consumer-related characteristics, including consumer-celebrity image congruency and parasocial interaction, in enhancing endorsement outcomes (Albert et al., 2017; Choi and Rifon, 2012). Consumer identification with an endorser leads to various endorsement outcomes such as positive advertisement attitude, brand attitude, engagement with brand content, and purchase intention (Shan et al., 2019; Aaker et al., 2000).

Furthermore, the emotional impact of endorsers, particularly their smiling facial expressions, has emerged as a crucial factor in influencing viewers' attitudes and purchase intentions. Endorsers' positive emotional cues, rooted in theories such as emotional contagion, contribute to creating favorable perceptions of the endorsed content and fostering engagement among consumers (Kulczynski et al., 2016).

Last, despite being a cost-effective alternative to traditional celebrities, research on peer endorsements remains limited. Existing studies stress the significance of endorser similarity in peer-endorsed advertising effectiveness, rooted in social identity theory, which suggests that consumers' identification with similar peers enhances advertising impact (Sorum et al., 2003; Thompson and Malaviya, 2013). Besides, trustworthiness, expertise, similarity, and attractiveness of peer endorsers further contribute to positive attitudes toward advertisements (Munnukka et al., 2016).

By integrating insights from celebrity and peer endorsement literature, it sets the stage for empirical research aimed at elucidating the impact of these characteristics on advertising effectiveness within the realm of consumer-generated content on social media platforms. Based on attribution-based framework (Kapitan and Silvera, 2016), four relevant endorser characteristics (i.e., endorser attractiveness, endorser-brand fit, endorser similarity and endorser's smiling facial expression) are selected from the list for this thesis. Section 2.7.1 justifies the selection of these four endorser characteristics within the context of consumer selfies.

**Table 3. Endorser characteristics determining effective advertisement.**

<b>Key reference</b>	<b>Context</b>	<b>Theories</b>	<b>Key variables</b>
(Priester and Petty, 2003, Munnukka et al., 2016, Amos et al., 2008)	Celebrity endorsement in print advertisement Peer endorsement in television advertisement	Source credibility model (Erdogan, 1999)	Endorser trustworthiness
(Siemens et al., 2008, Amos et al., 2008, Munnukka et al., 2016)	Celebrity endorsement in print advertisement Peer endorsement in television advertisement	Source credibility model (Erdogan, 1999)	Endorser expertise
(Till and Busler, 2000, Munnukka et al., 2016, Amos et al., 2008)	Celebrity endorsement in print advertisement Peer endorsement in television advertisement	Source attractiveness model (Erdogan, 1999)	Endorser attractiveness
(Amos et al., 2008, Choi and Rifon, 2012, Knoll and Matthes, 2017, Till and Busler, 2000).	Celebrity endorsement in print advertisement	The match-up hypothesis (Kamins and Gupta, 1994)	Endorser-product congruence
(Albert et al., 2017, Choi and Rifon, 2012)	Celebrity endorsement in print advertisement	Social influence theory (Kelman, 1961b)	Consumer-endorser congruence
(Jin, 2018, Gong and Li, 2017, Jin and Ryu, 2020)	Celebrity endorsement on social media	The Hovland–Yale persuasion model (Hovland et al., 1953)	Consumer-celebrity parasocial interaction

<b>Key reference</b>	<b>Context</b>	<b>Theories</b>	<b>Key variables</b>
(Kulczynski et al., 2016)	Celebrity endorsement in print advertisement	Emotional contagion theory (Hatfield et al., 1993)	Endorser's smiling facial expression
(Munnukka et al., 2016, Sorum et al., 2003, Thompson and Malaviya, 2013)	Peer endorsement in television advertisement and print advertisement	Social identity theory (Tajfel et al., 1979)	Endorser similarity

## **2.5. Brand-Related User-Generated Content**

Consumer selfies are a type of visual brand-related user-generated content (Br-UGC). As argued previously, it is important to consider the perceived motives of peer endorsers when applying advertising theories in the context of consumer selfies, because their motives are different from those of endorsers in advertisements. Hence, this section reviews the literature on Br-UGC in order to explore the motivations of peer endorsers in creating Br-UGC that may be relevant in the consumer selfies context.

First, this section introduces the conceptualisations and forms of Br-UGC in the literature (section 2.5.1.). This follows by an analyse of the research on two types of Br-UGC: online consumer reviews and posts on social networking sites (section 2.5.2.). Then, it summarises the motivations that may influence the effectiveness of Br-UGC (section 2.5.3.),

### **2.5.1. Introduction**

This section provides an introductory overview of the conceptualizations and forms of brand-related user-generated content (Br-UGC), as well as the motivations behind its creation.

### *2.5.1.1. Conceptualizations*

User-generated content (UGC) is defined as online content that is created, published, and disseminated by general users, which has communicative effects on other users (dos Santos, 2021, Kim and Johnson, 2016). Brand-related UGC (Br-UGC) which refers to UGC that contains brand-related subject matter, has received particular attention from marketing scholars (Smith et al., 2012).

It is worth noting another concept, electronic word-of-mouth (eWOM), which is defined as messages electronically delivered by potential, actual, or former customers about a product or a company (Hennig-Thurau et al., 2004). UGC and eWOM are often used interchangeably when UGC is brand-related, although UGC is broader in its scope than eWOM (Smith et al., 2012). Cheong and Morrison (2008) pointed out that eWOM emphasised on the conveyance of content whereas UGC focuses on the generation or creation of the content. Considering eWOM sometimes include consumers' pass-on behaviour, that is, forwarding company-generated content (CGC) (e.g., Ho and Dempsey, 2010), this research takes the concept of brand-related UGC since consumer selfies are created by ordinary consumers.

### *2.5.1.2. Motivations*

A few scholars have investigated the motivations for consumers to create Br-UGC (Daugherty et al., 2008, Hennig-Thurau and Walsh, 2003). For example, Daugherty et al. (2008) identified that ego-defensive and social functional sources are two functional motivations to create and consume Br-UGC, which is mediated by the attitude towards Br-UGC. Ego-defensive function refers to motivations to feel a sense of belonging and importance, and to defend their self-images, whereas social function represents the motivation to share and connect with other people. However, the utilitarian (i.e., the need to gain rewards and avoid punishments) and knowledge function (i.e., the need to gain information and feel a sense of intrinsic wisdom) are found nonsignificant motivations. Moreover, a negative relationship between value-expressive function (i.e., the need to express personal value) and Br-UGC creation. Daugherty et al. (2008) explain that it may be because value expressiveness reflects consumers' moral beliefs that



associate serious and controversial topics, while Br-UGC are often entertaining and light-hearted.

Moreover, Hennig-Thurau et al. (2004) identified four primary motivations that consumers publish online reviews on review websites: consumers' desire for social interaction, desire for economic incentives, concerns for other consumers and the potential to enhance their self-worth. First, one's desire for social interaction means that consumers may write reviews from in and belong to the virtual community of platform users, which may further enable them to receive social benefits. Second, one's desires for economic incentives refer to the cases where people are driven by the remunerations from the review platforms to contribute their opinions for the products. Third, concerns for other consumers refer to reviewers' desire to add value to the community by helping other consumers with their purchase decisions or saving them from negative experiences. Fourth, the potential to enhance their self-worth, which refers to one's desire to gain positive recognition from others, such as a consumption expert or intelligent shopper.

To conclude, studies by Daugherty et al. (2008) and Hennig-Thurau et al. (2004) provide valuable insights into the multifaceted nature of these motivations, ranging from social connection and self-expression to altruism and self-enhancement. By recognizing these underlying drivers, marketers can tailor their strategies to resonate with consumers' needs and preferences, fostering more authentic and engaging interactions.

### *2.5.1.3. Visual vs. Textual Br-UGC*

UGC on social media takes many forms, such as narrative text, image, video, or any combination of these forms. However, the current literature on Br-UGC is limited to focusing on Br-UGC in the text form, such as the messages on Twitter (Hennig-Thurau et al., 2015). By contrast, in real life, more and more consumers post content with pictures or simply use pictures alone thanks to the popularity of photo-centric UGC platforms like Instagram.

Visual presentation of products is an effective means to enhance message vividness in an online context. Information vividness refers to the extent to which sensory information is conveyed by a shared post online (Coyle and Thorson, 2001). Unlike in the real world, where individuals can directly experience objects through touch, taste, or smell, the mediated environment of online platforms lacks these sensory cues. Visual depictions of products or services can compensate for this lack of haptic information online, enabling users to imagine and assess products more confidently (Herr et al., 1991). A vivid presentation exposes consumers to more information cues about a product and stimulates more sensory channels than a dull presentation (Herr et al., 1991). Increased vividness significantly enhances information richness, attracts attention, simulates social presence, activates individual arousal levels, and affects emotions (Keller and Block, 1997). Moreover, it reduces mental effort in processing information, leading to longer-lasting and more accurate memories (Coyle and Thorson, 2001).

With regard to Br-UGC, visual content represents a significant departure from textual content (Smith and Pyle, 2015). While textual Br-UGC, such as reviews on Amazon, maintains a certain level of physical and psychological distance between senders and receivers, visual content enhances the vividness of shared experiences, ultimately enhancing message persuasiveness (Herr et al., 1991). Research indicates that visual Br-UGC provides informational and social values similar to textual Br-UGC, while also offering emotional and aesthetic values distinct from it (Smith and Pyle, 2015). For instance, viewers derive informational value from visually seeing the product and receiving usage information, along with social value when they feel associated with presenters who share similar lifestyles and tastes. Visual Br-UGC can also offer emotional value by arousing positive feelings or affective states, as well as aesthetic value by providing enjoyment of well-designed or aesthetically pleasing aspects (Smith and Pyle, 2015).

Moreover, the use of photos, as a form of visual vividness, is crucial in attracting attention and encouraging responses in the busy online environment compared to written messages (Liu et al., 2017; Fang et al., 2018). People tend to feel overloaded with cognitive demands when presented with too much text content, especially when motivation levels are low, leading them to ignore text-heavy information and focus more on superficial and peripheral information like images (Park and Young, 1986; Liu et al., 2017; Kapitan and Silvera, 2015). Research

demonstrates that using photos in posts significantly increases likes and shares on social media platforms, as they enhance cognition and generate emotional interest (Liu et al., 2017). However, the effects on the number of comments vary, with some studies suggesting an increase due to the inclusion of photos (Fang et al., 2018).

Furthermore, user-generated images, particularly those with an amateur aesthetic, have a greater influence on viewers on social media platforms compared to company-generated images (Colliander and Marder, 2018). Consumer photos, often portraying average situations and taken by ordinary users, are perceived as more congruent and meaningful in a social media setting, leading to more favorable responses from viewers (Schroeder, 2010; Colliander and Marder, 2018). Studies indicate that photos with an amateur aesthetic produce higher levels of likability and perceived source credibility, resulting in more positive brand attitudes and higher recommendation intentions (Colliander and Marder, 2018).

While existing research on brand-related UGC has highlighted the significance of photos in online posts, less is known about how specific visual elements within photos influence people. Therefore, this research aims to investigate the impact of visual characteristics, particularly human factors, in brand-related user-generated images. Human factors, such as the presence of recognizable faces, distinguish user-generated images from company-generated ones and have been shown to influence marketplace conversations and shape brand image (Rokka and Canniford, 2016; Presi et al., 2016). Specifically, consumer selfies, which combine self-image with brand image, have gained attention for their potential to serve as voluntary consumer endorsements and affect brand perceptions (Somerfield, Mortimer, and Evans, 2018).

To conclude, this section describes the advantages visual Br-UGC, especially user-generated images, has compared to textual Br-UGC. The visual presentation of products online enhances message vividness by providing sensory cues, compensating for the lack of direct physical interaction (Coyle and Thorson, 2001; Herr, Kardes, and Kim, 1991). This vividness stimulates sensory channels, attracting attention, simulating social presence, and affecting emotions, ultimately resulting in longer-lasting and more accurate memories (Keller and Block, 1997). Visual Br-UGC offers informational, social, emotional, and aesthetic values, distinct from

textual Br-UGC, by enhancing shared experiences and persuasiveness (Smith and Martin, 2015). Photos play a crucial role in capturing attention and generating responses in online environments, particularly due to their ability to reduce cognitive load compared to text-heavy content (Liu et al., 2017; Fang et al., 2018). User-generated images with an amateur aesthetic have a greater influence on social media viewers, leading to more favorable brand attitudes and higher recommendation intentions (Colliander and Marder, 2018). Despite the recognition of the importance of photos in online posts, there is limited understanding of how specific visual characteristics in the content, particularly human factors like recognizable faces in consumer selfies, influence brand perceptions (Rokka and Canniford, 2016; Somerfield, Mortimer, and Evans, 2018). Hence, studying consumer selfies as a type of image Br-UGC contributes to the understanding of visual Br-UGC in the literature.

Notably, although this thesis investigates consumer selfies as a type of visual Br-UGC, it does not focus on the influences of image-relevant variables specifically, such as brightness and visual complexity (Kusumasondjaja and Tjiptono, 2019). Instead, this thesis is interested in examining the effects of visual forms of the peer endorsers' characteristics in consumer selfies on endorsement effectiveness, such as perceived attractiveness and endorser-brand fit, in the context of consumer selfies. Therefore, variables that are not directly related to peer endorsers are not to be included as independent variables. However, to limit the potential confounding effects from image-relevant elements in consumer selfies, the variable 'image quality' (Benoit et al., 2020) is included as a control variable in the model.

### **2.5.2. Online Reviews and Social Media Posts**

Br-UGC can be categorized into two types based on the platforms they are generated: First, Br-UGC on various social networking sites, such as posts on Twitter or Facebook, images on Instagram, or videos on YouTube. Second, Br-UGC on platforms where posters are almost unknown to readers, such as consumer online reviews on review sites and forums for brand communities. Both types of Br-UGC can have significant influence on other consumers' perceptions and behaviours related to the brands (Rosario et al., 2016, Hennig-Thurau et al., 2015).

### *2.5.2.1. Online Consumer Reviews*

Individuals typically navigate through a structured process when deciding on purchases, which encompasses recognizing their needs, searching for information, evaluating alternatives, making the purchase, and reflecting on their decision afterward (Solomon, 2010). In this digital era, the rise of web applications has catapulted online reviews into the spotlight, constituting both positive and negative feedback from consumers regarding products and services (Hennig- (Hennig-Thurau et al., 2004). These reviews wield significant influence over consumer perceptions and play a decisive role in shaping their purchasing behaviours (Banerjee et al., 2017).

Online reviews have emerged as potent tools in the marketing realm, exerting influence on consumer intentions through the persuasiveness of their messages and the evaluations they offer on products (Erkan and Evans, 2016). As consumers increasingly rely on reviews as primary sources of product information, these assessments profoundly impact their search for information and eventual purchase decisions (Litvin et al., 2008). The importance of studying online reviews lies in their potential to either enhance or tarnish a brand's reputation, as the comments shared online can change public perception (Sparks and Browning, 2011). Therefore, understanding the dynamics of online reviews is crucial for businesses, given their significant ramifications on consumer behaviour and brand image.

Extensive research has focused on online consumer reviews on review/shopping websites (e.g., TripAdvisor and Amazon). Especially, researchers are interested in identifying the factors that lead to perceived review usefulness (e.g., Filieri et al., 2018). For instance, Filieri et al. (2018) elucidate how factors like popularity signals, two-sided reviews, and expert sources significantly influence consumers' perceptions of service quality and performance. Furthermore, they revealed that the perceived helpfulness of information not only predicts purchase intention but also acts as a partial mediator in the relationship between various factors such as popularity signals, source homophily, source expertise, and purchase intention.

Moreover, the reviewer's reputation (e.g., the number of friends, fans and elite awards), the reviewer's expertise and identity disclosure (e.g., the presence of real name, photo and address) positively affect the usefulness of the message (Xu, 2014, Liu and Park, 2015). In particular, the general presence of profile pictures, and especially the real photo of the source, increase receivers' trust in the source and further the credibility of the message (Xu, 2014, Liu and Park, 2015). According to uncertainty reduction theory (Berger and Calabrese, 1975), people try to reduce uncertainty when they interact with strangers. Hence, the display of a profile picture is one of the ways to decrease this uncertainty when it comes to online reviews (Xu, 2014).

In a similar vein, Chen et al. (2019) delve into the interplay between facial expressions of reviewers' avatars and images within review content, revealing intriguing insights into perceived review helpfulness. Their study suggests that the facial expressions of avatars, whether happy or angry, interact with images in review content to influence consumer perceptions. Specifically, when reviewers' avatars convey happiness, consumers tend to perceive group images in a restaurant setting as more helpful compared to images of individuals. Conversely, the presence of an angry-looking avatar does not significantly alter perceptions of online review helpfulness, regardless of the image content. Furthermore, Chen et al. (2019) shed light on the underlying mechanism driving these perceptions, identifying causal attribution toward store performance as a key determinant.

On the other hand, Weathers et al. (2015) offer insights into the factors that consumers consider when evaluating review helpfulness, drawing from a comprehensive analysis of over 8000 helpfulness ratings from product reviews on Amazon.com. Their research highlights the importance of diagnosticity (uncertainty and equivocality) and credibility (trust and expertise) of product reviews in shaping consumer perceptions. Moreover, Banerjee et al. (2017) highlight the multifaceted nature of reviewer trustworthiness, indicating that factors such as reviewer positivity, involvement, experience, reputation, competence, and sociability collectively contribute to the acceptance of reviews. These findings also revealed the indirect impact of online reviews on the sales of products and services.

In addition, Wei and Lu (2013) studied the comparative effectiveness of celebrity endorsements versus online customer reviews, particularly in the context of female products. Their study reveals differences dependent on product types, with celebrity-endorsed advertisements proving more effective for search goods (e.g., shoes) in capturing consumer attention, desire, and behavior. Conversely, online reviews emerge as more impactful for experience goods (e.g., toner), eliciting higher levels of consumer memory, search, and share attitudes.

In general, the literature points out two types of factors have found to affect the perceived usefulness of online reviews: review factors and reviewer factors. First, reviewer characteristics, such as reviewer's reputation, expertise, and identity disclosure have been identified to contribute to review helpfulness (Xu, 2014; Liu and Park, 2015). Second, studies have found that review characteristics, such as message valence (Baker et al., 2016), message length and message readability (Liu and Park, 2015) increase perceived usefulness. Overall, these studies collectively contribute to a deeper understanding of the nuanced dynamics at play in the realm of online reviews, highlighting the multifaceted factors that influence consumer perceptions, attitudes, and behaviors in the digital marketplace.

#### *2.5.2.2. Posts on Social Networking Sites*

Compared with the research on online consumer reviews, less attention has been given to Br-UGC on social networking sites, where consumer selfies are usually generated. However, Kim and Johnson (2016) found that brand-related UGC on Facebook activates viewer emotional and cognitive responses, and further influence their behaviours (i.e., information pass-along, impulse buying, future-purchase intention, and brand engagement). In the relatively limited and fragmented literature, two elements have been examined to affect the effectiveness of brand-related UGC on social networking sites: conspicuousness and sponsorship.

First, conspicuous brand usage, which refers to a situation where an individual blatantly uses a brand to get attention, negatively influences brand evaluations (Ferraro et al., 2013). Conspicuous brand usage in Br-UGC may be driven by the motivations of ego-defensive and

social functions (Daugherty et al., 2008, Ferraro et al., 2013). However, Ferraro et al. (2013) showed that posts with conspicuous brand usage on Facebook lead to less favourable attitudes toward the poster and the brand among viewers who have a low brand connection. They argued that conspicuous usage violates social norms of modesty (Godfrey et al., 1986) and according to attribution theory (Kelley, 1973), novel or unexpected behaviours drive people to think about the underlying causes. Therefore, viewers may infer that Br-UGC that have conspicuous brand usage are driven by ulterior motives, such as managing impressions or gaining social approval, which leads to unfavourable attitudes (Ferraro et al., 2013).

Second, researchers found the sponsorship (organic versus sponsored) of Br-UGC affects viewers' perception and behaviours about the brands (Kim and Song, 2018, Kim and Lee, 2017). Specifically, Kim and Song (2018) identified two types of Br-UGC based on their sponsorship: The Br-UGC that are paid or posted for monetary reasons are called sponsored posts, whereas the Br-UGC that are unpaid or posted voluntarily are called organic posts. In general, organic posts lead to more positive brand attitudes and greater purchase intentions than sponsored posts (Kim and Song, 2018, Kim and Lee, 2017). This can be explained by attribution theory (Kelley, 1973) where people tend to make causal explanations about others' behaviours. The discounting principle in attribution theory states, "the role of a given cause in producing a given effect is discounted if other plausible causes are also present" (Kelley, 1973, p. 113). In other words, the presence of an external cause (e.g., monetary gain motive), may discount the perceived internal cause (e.g., altruism) of the person to write the UGC. For example, Kim and Lee (2017) found that brand-related UGC from a real friend induces more positive responses than from a celebrity, but it only occurs when the UGC is organic. In other words, when the UGC is sponsored, the source types did not make difference, because viewers attribute both monetary-gain motives to both sources (Kim and Lee, 2017). Moreover, sponsored UGC was found to lead to a more negative brand attitude than company-generated content (Müller and Christandl, 2019). In addition, Kim and Song (2018) further discovered that content types interacted with sponsorship in brand-related UGC. Specifically, when the UGC is organic (i.e., unpaid), experience-centric UGC is more likely to induce favourable consumer responses than promotional UGC. But when the UGC is sponsored (i.e., paid), promotional content yields more effective results than experience-centric content. Overall, previous studies suggest that Br-UGC posted voluntarily and contains consumers' personal experiences and subjective



opinions of the brands leads to the most positive brand responses (e.g., brand attitude and purchase intention).

In summary, two influential factors identified in this domain are conspicuous brand usage and sponsorship among post on social media. Conspicuous usage, motivated by ego-defensive and social factors, can lead to negative brand evaluations, particularly among viewers with low brand connection (Ferraro et al., 2013). On the other hand, the sponsorship of Br-UGC, distinguishing between organic (unpaid) and sponsored (paid) posts, significantly influences viewer perceptions and behaviors toward brands, with organic content generally evoking more positive attitudes and purchase intentions compared to sponsored content (Kim and Song, 2018; Kim and Lee, 2017). These factors may also play a role in shaping how consumer selfies are perceived by viewers. Understanding how viewers interpret and respond to consumer selfies in the context of these factors can contribute to a more comprehensive understanding of peer endorsement effectiveness and its impact on consumer behavior.

#### *2.5.2.3. Consumer Reviews vs. Consumer Selfies*

This thesis argues that consumer selfies differ from consumer reviews in three ways: Firstly, consumers are often anonymous on review websites, where viewers can only make a limited inference of the consumers from signals such as profile information and system-generated reputation (Xu, 2014). On the contrary, in the context of consumer selfies, the presence of the source is focal to the UGC where the consumer's personal life and personal details are easily accessed both from the photo and from the social media platform, which allows viewers to make more rounded evaluations about the person.

Secondly, viewers read product reviews mainly with the purpose of making purchase decisions in online or offline stores, thus they are more cognitively engaged with the message elements rather than superficial source characteristics (Kapitan and Silvera, 2016). However, viewers on social media are usually distracted, with a lower need for cognition (Kapitan and Silvera, 2016), which may lead them to process the content superficially, further highlighting the role of certain

source characteristics, such as perceived likability, similarity, and attractiveness (Kapitan and Silvera, 2016).

Lastly, online reviews can be motivated by social interaction, economic incentives, helping others and enhancing self-worth (Hennig-Thurau et al., 2004). However, consumer selfies may be posted for different reasons, such as impression management (Pounders et al., 2016). Therefore, consumer selfies may contain specific factors like conspicuous brand usage (Ferraro et al., 2013, Rokka and Canniford, 2016), which have not been examined in the online review literature.

Due to the significant difference between the two types of Br-UGC, it is important to study the influence of source characteristics in the context of consumer selfies. By understanding how these distinct factors influence viewers' perceptions and behaviours, researchers can gain deeper insights into the effectiveness of peer endorsements in the digital age.

### **2.5.3. Summary**

Based on the consumer selfie context and attribution-based framework (Kapitan and Silvera, 2016), this thesis argues that the peer endorser effectiveness is affected by perceptions of peer endorsers' motives. Table 4 summarises a concise overview of motivations driving the creation of Br-UGC across various online platforms. Drawing on a range of studies, it highlights key findings related to conspicuous brand usage and monetary-gain motives. For instance, experiments reveal that conspicuous brand usage in social media posts leads to less favorable brand attitudes among viewers with low brand connection (Ferraro et al., 2013). Similarly, Br-UGC on platforms like Twitter, driven by monetary-gain motives, tends to elicit less positive brand perceptions and purchase intentions (Kim and Song, 2018; Kim and Lee, 2017). Furthermore, insights from online surveys underscore diverse motivations behind consumer reviews, including the desire for social interaction, economic incentives, altruism, and self-enhancement (Hennig-Thurau et al., 2004; Daugherty et al., 2008). This summary encapsulates the multifaceted nature of Br-UGC motivations and their implications for consumer engagement and brand perception.

Studying the motives behind consumer selfies is important because it sheds light on how viewers perceive and interpret endorsement messages shared by their peers. Unlike celebrity endorsements, where viewers may rely on readily available information to assess expertise and trustworthiness, determining the credibility of unknown peer endorsers in consumer selfies can be challenging. In the absence of explicit information, viewers may infer the motives driving the endorsing behaviors of their peers.

Two primary motives are examined: monetary gain, as proposed by Kim and Lee (2017), and conspicuous brand usage, as suggested by Ferraro et al. (2013). Unlike paid endorsers in traditional advertisements, peer endorsers promote brands voluntarily and share authentic consumer experiences. For instance, peers often showcase brands to gain social status or material rewards from marketers. By understanding these underlying motives, viewers can better interpret and contextualize the messages conveyed through consumer selfies. This insight enhances our understanding of how peer endorsements influence consumer perceptions and behaviors in the realm of social media marketing. For more details about the selection justification please see the discussion in section 2.7.2.

**Table 4. Motivations for posting Br-UGC**

<b>Key reference</b>	<b>Context</b>	<b>Method of analysis</b>	<b>Key findings</b>	<b>Key variables</b>
(Ferraro et al., 2013).	Posts on Facebooks	Experiments	Posts motivated by conspicuous brand usage on Facebook lead to less favourable attitudes toward the brand among viewers who have low-brand connection.	Conspicuous Brand Usage
(Kim and Song, 2018, Kim	Posts on Twitter	Experiments	Posts with monetary-gain motive on Twitter in general lead to less positive brand	Monetary-gain motive

<b>Key reference</b>	<b>Context</b>	<b>Method of analysis</b>	<b>Key findings</b>	<b>Key variables</b>
and Lee, 2017).			attitudes and purchase intentions than those without.	
(Hennig-Thurau et al., 2004)	Consumer reviews on review websites	Online survey	Online reviewers on review websites are motivated by their desire for social interaction, their desire for economic incentives, concerns for other consumers and the potential to enhance their self-worth.	Social benefits Monetary rewards Altruism Self-enhancement
(Daugherty et al., 2008)	Online Br-UGC in general	Online survey	Ego-defensive and social functional sources are two functional motivations to create Br-UGC.	Ego-defensive function Social function

## 2.6. Authenticity

Based on attribution-based framework (Kapitan and Silvera, 2016) and prior work on endorsement (Ilicic et al., 2018), this thesis seeks to understand the mediating role of perceived authenticity of peer endorsers in consumer selfies.

Within the field of marketing, there are two streams of research involved with the concept of authenticity: brand authenticity and human authenticity (Fritz et al., 2017). Therefore, this section is devoted to reviewing the literature on brand authenticity (section 2.6.1.) and human brand authenticity (section 2.6.2.).

## **2.6.1. Brand Authenticity**

Consumers continuously seek authenticity in brands, which has become a core element in advertising (Sodergren, 2021). Moreover, Park et al. (2021) suggested that brand authenticity will be even more important for companies after the COVID-19 era. As reviewed by Sodergren (2021), 25 years of research on brand authenticity has well documented the antecedents and consequences of brand authenticity.

### *2.6.1.1. Conceptualisation*

Despite the lack of a commonly accepted definition, brand authenticity is consistently associated with “what is genuine, real, and/or true” in the literature (Beverland and Farrelly, 2010, p.839).

Marketing scholars have developed various conceptualisation and measurement scales of brand authenticity. For example, based on four dimensions of brand authenticity, credibility, integrity, symbolism, and continuity, Morhart et al. (2015, p.202) defined brand authenticity as “the extent to which consumers perceive a brand to be faithful toward itself, true to its consumers, motivated by caring and responsibility, and able to support consumers in being true to themselves.” On the other hand, Nunes et al. (2021) defined it as a holistic consumer assessment determined by six component judgements: accuracy, connectedness, integrity, legitimacy, originality, and proficiency. By contrary, Napoli et al. (2014) referred brand authenticity as a subjective evaluation of the genuineness of a brand perceived by consumers, which could be measured by quality commitment, sincerity and heritage as first-order factors of its scale. In addition, Fritz et al. (2017) defined brand authenticity as the perceived consistency of a brand’s behaviour that reflects its core values and norms. They further identified that indexical cues (i.e., object facts), such as brand heritage, and iconic cues (i.e., subject interpretation), such as consumer-brand identification affect perceptual processes that contribute to forming an authenticity evaluation (Fritz et al., 2017).

Overall, the review of the extant literature suggests that brand authenticity is a polysemous concept that can be established in multiple ways and measured by multiple dimensions. Hence, Sodergren (2021) suggests not compressing the wealth of disparate meanings into one single definition.

#### *2.6.1.2. Effects of Brand Authenticity*

Accumulated evidence suggests that consumers' assessment of brand authenticity has positive effects on both consumers' psychological and behavioural outcomes (Park et al., 2021, Morhart et al., 2015, Fritz et al., 2017, Nunes et al., 2021). For example, Morhart et al. (2015) found that perceived brand authenticity increases consumers' emotional brand attachment and positive word-of-mouth. Moreover, Fritz et al. (2017) showed that brand authenticity positively affects brand relationship quality, which in turn positively influences consumers' behavioural intentions (i.e., purchase intention, price premium, and forgiveness). In addition, Nunes et al. (2021) showed that brand authenticity leads to behavioural intentions (i.e., information search, purchase, and word-of-mouth), which is mediated by brand attitude. Overall, as summarised by Sodergren (2021) in their review paper on brand authenticity, there are four main categories of the outcomes of brand authenticity: brand trust, brand loyalty, perceived quality and cultural iconicity.

#### **2.6.2. Human brand authenticity**

As opposed to the authenticity of standard product brands, an increasing number of marketing researchers are paying attention to consumer perception of authenticity of "human brand" (e.g., a celebrity) (Moulard et al., 2015, Ilicic and Webster, 2016). Much similar to consumers' perception of brand authenticity (what is genuine, real, and/or true) (Beverland and Farrelly, 2010), Moulard et al. (2015) first defined that a person is perceived to be authentic when they behave according to their true self, and when they are genuine and real. In fact, the conceptualisation was derived from Self-Determination Theory (Ryan and Deci, 2002), which posits individuals are authentic when their actions reflect their autonomous, self-determining true self.

### *2.6.2.1. Perceived Authenticity of Celebrities*

The majority of research on human brand authenticity has focused on studying the perceived authenticity of celebrities (Kowalczyk and Pounders, 2016, Moulard et al., 2015, Ilicic and Brennan, 2020, Ilicic and Webster, 2016).

Based on attribution theory, people attribute others' behaviours to either their intrinsic motivations (i.e., inherent satisfaction) or extrinsic motivations (e.g., rewards) (Kelley, 1973). Accordingly, a celebrity is perceived as authentic when his/her behaviours are associated with internal dispositions (Moulard et al., 2015). Therefore, Moulard et al. (2015) argued that celebrity authenticity is driven by two factors- that behaviour (1) is unique to the person and (2) is stable over time. Accordingly, rarity and stability are identified as two antecedents of consumer perceptions of celebrity authenticity (Moulard et al., 2015). First, rarity is defined as the degree to which the celebrity is seen as uncommon. Rarity is comprised of three sub-dimensions: talent, discretion, and originality. Second, stability is defined as the degree to which the celebrity is seen as unwavering. Stability is comprised of consistency, candidness and morality as dimensions.

Moreover, although Moulard et al. (2015)'s study focuses on behaviours that reflect the celebrity's true self, the scale they used consists of broad global measures of authenticity (i.e., "is genuine", "seems real to me" and "is authentic to me"). Therefore, Ilicic and Webster (2016) extended on the work of Moulard et al. (2015) and developed a new measurement of celebrity authenticity to assist brand managers in understanding the particular behaviours that lead to consumer perceptions of celebrity authenticity (i.e., "X tries to act in a manner that is consistent with his held values, even if others criticise or reject him for doing so", "X cares about openness and honesty in close relationships with others", "In general, X places a good deal of importance on understanding who he truly is", "People can count on X being who he is regardless of the situations").

In terms of the outcomes, research has found that celebrity authenticity enhances endorser-consumer relationships (e.g., emotional attachment) and further influences consumer behaviours (e.g., word of mouth and purchase likelihood) (Kowalczyk and Pounders, 2016, Ilicic and Brennan, 2020, Ilicic and Webster, 2016). For example, Kowalczyk and Pounders (2016) found that consumers form stronger emotional attachments with celebrities who are perceived as authentic. As a result, consumers are more likely to spread WOM about celebrities on social media and purchase their products (e.g., concerts and TV shows) (Kowalczyk and Pounders, 2016)

#### *2.6.2.2. Perceived Authenticity of Unknown Spokespeople in Advertisements*

In addition to celebrity authenticity, research has also found the positive effects of the perceived authenticity of unknown spokespeople on advertisement effectiveness (Ilicic and Brennan, 2020, Ilicic et al., 2018). Unlike celebrities whose personalities and behaviours can be observed in different media fields (Ilicic and Webster, 2016), consumers evaluate unknown spokespeople mainly based on their appearance.

According to ecological theory, the physical appearance of an individual leads to biased perceptions of their personality traits (i.e., over-generalisation effect) (Zebrowitz and Montepare, 2008). As an over-generalisation effect related to source authenticity, endorsement research has found physical features such as asymmetrical facial structure, freckles and moles (Ilicic et al., 2018), direct eye gaze and smile (Ilicic and Brennan, 2020) influence consumers' perceptions of the endorser authenticity, which leads to advertisement effectiveness. For example, Ilicic et al. (2018) demonstrated that a spokesperson's asymmetrical face positively influences consumer perceptions of source authenticity and, in turn, their attitude toward the advertisement, attitude toward the brand and purchase intention.

In summary, previous research has found perceived authenticity to mediate the effects of the physical appearance of endorsers on advertisement effectiveness (Ilicic and Brennan, 2020, Ilicic et al., 2018). Noticeably, researchers adopted Moulard et al. (2015)'s global measures of celebrity authenticity (i.e., "is genuine", "seems real to me" and "is authentic to me") to



measure the perceived authenticity of unknown spokespeople in advertisements (Ilicic et al., 2018). Likewise, as a personality trait, this thesis argues that viewers make judgements about the peer endorsers' authenticity according to not only their looks but other visual information portrayed in consumer selfies (Presi et al., 2016). Therefore, following Ilicic et al. (2018)'s choice, this research adopts Moulard et al. (2015)'s global measures of endorser authenticity to measure the perceived authenticity of peer endorsers in consumer selfies.

## **2.7. Application of Attribution-Based Model**

Based on attribution-based framework (Kapitan and Silvera, 2016), this thesis argues that social influences of the peer endorser characteristics in consumer selfies may occur through superficial processing (section 2.7.1.) and deep processing (section 2.7.2.) via their perceptions of endorser authenticity (section 2.7.3.), which result in effective endorsement outcomes (section 2.7.4.). The selection of the specific variables in this research are discussed as follows.

### **2.7.1. Characteristics for Superficial Processing**

When viewers superficially examine the endorsed message, they tend to be influenced by superficial source characteristics (e.g., likeability) (Kapitan and Silvera, 2016). Under this condition, superficial positive source characteristics lead to identification (i.e., the desire to become like an endorser) with the endorsement, which results in more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016).

For superficial processing, this thesis examines whether endorser characteristics primarily identified in the endorsement in advertisements literature, including endorser attractiveness, endorser-brand fit, endorser-viewer similarity, and endorser happiness, also have positive effects with peer endorsers in the context of consumer selfies (Amos et al., 2008, Choi and Rifon, 2012, Kulczynski et al., 2016). Given a consumer selfie photo with few arguments and a busy, distracted consumer, this thesis expects that these positive cues will generate favourable viewer responses to the endorsement and the brands. The selection of the specific four endorser

characteristics is driven by their ability to resonate with consumers and shape their perceptions and attitudes towards the brands within the context of consumer-generated content on social media platforms, explained as following.

***Endorser Attractiveness:*** Consumer selfies often portray individuals showcasing products or experiences in visually appealing ways. Therefore endorser attractiveness holds particular relevance in this context. Research indicates that visually appealing endorsers can capture viewers' attention and positively influence their attitudes towards the endorsed brand (Till and Busler, 2000). In the realm of consumer selfies, where visual appeal plays a crucial role, selecting endorsers perceived as attractive can enhance the overall effectiveness of the endorsement.

***Endorser-brand Fit:*** Also known as endorser brand congruence which refers to the alignment between the endorser's characteristics and the endorsed brand's attributes (Erdogan, 1999). Viewers are more likely to perceive endorsements as credible and persuasive when they perceive a natural fit between the endorser and the endorsed brand (Choi and Rifon, 2012). In consumer selfies, leveraging endorsers whose personal brand aligns closely with the endorsed offering can reinforce resonance with the target audience.

***Endorser Similarity:*** Consumer selfies inherently involve individuals sharing their personal experiences or preferences, creating opportunities for relatability and identification among viewers. Endorser similarity, which reflects the resemblance between the endorser and the target audience in terms of demographics, lifestyle, or values, becomes instrumental in establishing connections and fostering engagement (Albert et al., 2017). Consumers are more likely to trust and emulate endorsers whom they perceive as similar to themselves (Shan et al., 2019). In the context of consumer selfies, selecting endorsers who mirror the target audience's characteristics or aspirations can enhance the endorsement's effectiveness by fostering a sense of camaraderie and shared identity.

***Endorser happiness:*** Endorser's smiling facial expression, indicative of happiness and positivity, holds significant persuasive power in shaping viewer perceptions and attitudes

(Kulczynski et al., 2016). Research suggests that positive emotional responses elicited by smiling endorsers can enhance advertisement effectiveness by fostering favourable attitudes and purchase intentions (Hatfield et al., 1993). In consumer selfies, leveraging endorsers with genuine and expressive smiles can contribute to the overall appeal and impact of the endorsement, eliciting positive responses from the audience.

In summary, the selection of these four endorser characteristics—endorser attractiveness, endorser-brand fit, endorser similarity, and endorser's smiling facial expression—is strategically justified in the context of consumer selfies due to their potential to enhance endorsement effectiveness by capturing attention, fostering authenticity, fostering connections, and evoking positive emotional responses among viewers.

### **2.7.2. Characteristics for Deep Processing**

By contrast, when viewers carefully process the message, they rely more on the perceptions of source expertise and trustworthiness, which can lead them to internalise the endorsement message and adopt the belief as their own (i.e., internalisation) and more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016). Unlike celebrities whose information is easily found on different media, viewers barely have information (e.g., profession and experience) to judge the trustworthiness/expertise of an unknown peer endorser in consumer selfies. Instead, this thesis argues that when viewers cognitively engaged with consumer selfies, they tend to infer motives for the endorsing behaviours (Kelley, 1973).

For deep processing, this thesis examines monetary-gain motive proposed by Kim and Lee (2017) and conspicuous brand usage suggested by Ferraro et al. (2013). Different from the endorsers in advertisements who are paid and intentionally designed to portray a brand in a positive light, peer endorsers promote the brands voluntarily and communicate the actual consumer experiences (Nanne et al., 2021, Presi et al., 2016). For example, peers often post brand-related contents to show off the brands to other consumers (Rokka and Canniford, 2016, Ferraro et al., 2013) and to gain material rewards provided by marketers (Kim and Lee, 2017). Accordingly, this thesis argues that viewers may refer these motives of peer endorsers when

they think deeply about consumer selfies. The selection of these two variables in particular is also driven prominent positions in the context of consumer selfies, explained as following.

***Monetary-gain motive:*** The increasing interest of companies in encouraging consumers to share selfies in marketing campaigns has been noted (Hartmann et al., 2021), leading consumers to post Br-UGC to gain material rewards (Kim and Song, 2018). Therefore, the examination of the perceived monetary-gain motive holds particular relevance in this context. Research has indicated that perceived commercial interests or self-serving motives in brand content on social media can trigger negative reactions (Mayrhofer et al., 2020; Shan et al., 2019). Previous studies have shown that the attribution of monetary gain in posts on Twitter negatively influences consumer responses (Kim and Lee, 2017; Kim and Song, 2018). Likewise, when viewers examine consumer selfies deeply, the perceived monetary-gain motive may generate unfavourable attitudes towards the selfies.

***Conspicuous brand usage:*** The phenomenon of conspicuous brand usage, characterized by individuals blatantly showcasing brands to gain attention, is prevalent in consumer selfies (Sung et al., 2018; Presi et al., 2016; Rokka and Canniford, 2016). However, existing literature suggests that conspicuous brand usage significantly affects the effectiveness of Br-UGC (Ferraro et al., 2013). It leads to negative brand evaluations, particularly among viewers with low brand connection, as it may be perceived as driven by ulterior motives such as managing impressions or gaining social approval (Ferraro et al., 2013). By studying conspicuous brand usage, researchers can gain deeper insights into their impact on viewer attitudes and behaviours.

### **2.7.3. Endorser Authenticity as a Mediator**

Based on attribution-based framework (Kapitan and Silvera, 2016) and prior work on endorsement (Ilicic et al., 2018), this thesis argues that perceived endorser authenticity as an innate characteristic, which compasses the dispositional attribution, plays the mediator role in consumer selfies. Endorser authenticity represents the perception that one behaves according

to their true self and being real and genuine (Ilicic et al., 2018, Moulard et al., 2015). Perceived endorser authenticity has been found to explain the effects of endorsers, such as their looks (e.g., facial features) (Ilicic and Brennan, 2020, Ilicic et al., 2018), actions (e.g., brand mentions) (Jun and Yi, 2020, Hu et al., 2020) and types (e.g., celebrity vs. influencer) (Kapitan et al., 2022), on endorsement outcomes (e.g., brand and ad attitude).

This thesis expects endorser authenticity to play a prominent role in the consumer selfie context for the following reasons: First, peer endorsers, compared to paid celebrity endorsers, are generally considered to post brands voluntarily on social media (Jin, 2018, Kim and Lee, 2017), which thus perceived as more authentic. Second, peer endorsers usually have an average and natural look which again intensifies the perceived authenticity (Ilicic et al., 2018). Third, consumer photos often endow spontaneous and natural aesthetics that are perceived as more credible compared to traditional studio aesthetics (Colliander and Marder, 2018), which may highlight authenticity.

Based on the existing literature and the context of this study, this thesis posits four characteristics of peer endorsers (i.e., similarity, happiness, monetary-gain motive and conspicuous brand usage) influence viewer attitudes via perceptions of authenticity. By examining the mediating effects, this thesis aims to offer explanations behind the effects of some endorser characteristics on consumer selfie attitudes.

#### **2.7.4. Endorsement Outcomes**

Finally, in terms of the outcomes of endorsement, previous research showed that peer endorser characteristics are directly related to attitude towards advertisement (Munnukka et al., 2016). Attitude towards the advertisement, as an affective construct referring to viewers' feelings of favourability/unfavourability to the advertisement itself, has long been established to mediate the effects of advertising on brand attitude and purchase intention (Mackenzie and Lutz, 1989, MacKenzie et al., 1986). Accordingly, this thesis conceptualises attitude towards consumer selfies as the direct outcome of endorser characteristics as it may transfer to other endorsement effects, such as consumer engagement with the contents (e.g., likes and comments) (Shan et al.,

2019) and further brand-related outcomes (e.g., brand attitude and purchase intention) (Gong and Li, 2017).

## 2.8. Summary

This chapter has reviewed the research on consumer selfies, where I identified a research gap. That is, a dearth of empirical studies examines more holistically the influence of consumer characteristics in consumer selfies. Then, I introduced attribution-based framework (Kapitan and Silvera, 2016) as the theoretical background applied in this thesis. Based on this framework, I further reviewed research on endorsement in advertisements, where a review of endorser characteristics for effective advertisements was offered. Then, I reviewed the literature on Br-UGC, where the motivations for creating Br-UGC were discussed. Last, I reviewed the research on authenticity, including brand authenticity and human brand authenticity. Based on this literature, relevant variables are adopted to explain the influences of consumer selfie characteristics through the theoretical lens of attribution-based framework (Kapitan and Silvera, 2016), as listed in Table 5. The next chapter offers the conceptual framework and hypotheses of this thesis.

**Table 5. The endorser characteristics adopted in the research model of this thesis.**

Role	Variables	Theory	Contexts studied	Key reference
	Endorser attractiveness	Source attractiveness model (Erdogan, 1999)	Celebrity and peer endorsements in advertisements Consumer selfies	(Till and Busler, 2000, Munnukka et al., 2016, Amos et al., 2008)
	Endorser-brand fit	The match-up hypothesis (Kamins and Gupta, 1994)	Celebrity endorsement in advertisements Consumer selfies (qualitative study)	(Amos et al., 2008, Choi and Rifon, 2012, Knoll and Matthes, 2017, Till and Busler, 2000)

<b>Role</b>	<b>Variables</b>	<b>Theory</b>	<b>Contexts studied</b>	<b>Key reference</b>
Superficial processing	Endorser similarity	Social identity theory (Tajfel et al., 1979)	Peer endorsement in advertisements	(Munnukka et al., 2016, Sorum et al., 2003, Thompson and Malaviya, 2013)
	Endorser's smiling facial expression (happiness)	Emotional contagion theory (Hatfield et al., 1993)	Celebrity endorsement in advertisements Consumer selfies	(Kulczynski et al., 2016)
Deep processing	Monetary-gain motive of the endorser	Attribution theory (Kelley, 1973)	Brand-related user-generated contents on Twitter	(Kim and Song, 2018, Kim and Lee, 2017)
	Conspicuous brand usage by the endorser	Attribution theory (Kelley, 1973)	Brand-related user-generated contents on Facebook Consumer selfies (qualitative study)	(Rokka and Canniford, 2016, Ferraro et al., 2013)
Mediator	Endorser authenticity	Ecological theory (Zebrowitz and Montepare, 2008)	Unknown spokespeople in print advertisement	(Ilicic and Brennan, 2020, Ilicic et al., 2018)

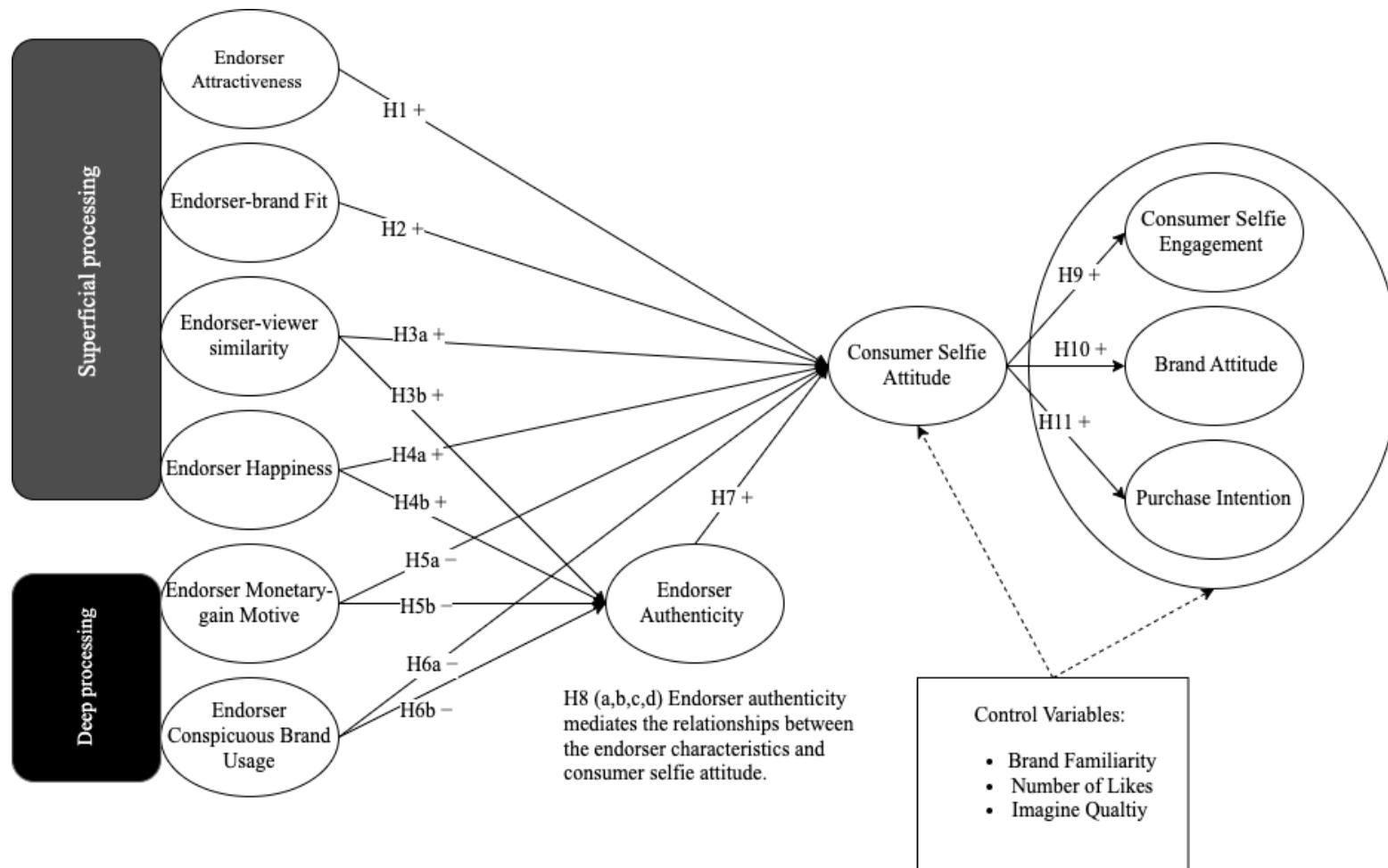
## **3. Chapter Three: Hypotheses Development**

### **3.1. Chapter Preview**

Drawing upon the attribution-based framework by Kapitan and Silvera (2016), this chapter develops the hypotheses which lead to a research model that explains how peer endorsers' characteristics relate to viewers' responses to consumer selfies (Figure 5). The hypothesized model combines the variables for superficial processing (i.e., endorser attractiveness, endorser-brand fit, endorser-viewer similarity and endorser happiness) and deep processing (i.e., conspicuous brand usage and monetary-gain motive) paths, which directly relate to consumer selfie attitude. In addition to the direct associations between endorser characteristics and consumer selfie attitude, this study further examines indirect associations of the endorser characteristics with consumer selfie attitude via endorser authenticity. Finally, consumer selfie attitude leads to endorsement effects (i.e., consumer selfie engagement, brand attitude, purchase intention).

All the constructs and relationships of the research model are conceptualised and discussed in detail in the rest of this chapter and organised as follows: Firstly, section 3.2. hypothesizes the relationships between six endorser characteristics and attitude towards consumer selfies. Then, section 3.3. presents the hypotheses about the mediating effects of endorser authenticity in four of the relationships between endorser characteristics and consumer selfie attitude. Next, section 3.4. hypothesizes the relationships between consumer selfie attitude and endorsement effects. Finally, section 3.5. offers the conclusion of the chapter.





**Figure 5. The hypothesized model**

## **3.2. Endorser Characteristics Related to Consumer Selfie Attitude**

This section describes six endorser characteristics related to Consumer Selfie Attitudes, which include four characteristics for superficial processing (section 3.2.1), and two characteristics for deep processing (section 3.2.2.).

### **3.2.1. Characteristics for Superficial Processing**

According to attribution-based framework (Kapitan and Silvera, 2016), in the process of superficial processing, positive endorse cues lead to identification (i.e., the desire to become like an endorser) with the endorsement, which results in more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016).

Therefore, this study examines whether endorser characteristics identified primarily in endorsement advertisement effectiveness literature, including endorser attractiveness, endorser-brand fit, endorser-viewer similarity, and endorser happiness, also have positive effects with peer endorsers in the context of consumer selfies (Amos et al., 2008, Choi and Rifon, 2012, Kulczynski et al., 2016). These variables have been found determinants of effective advertisement in the context of either celebrity endorsement (e.g., Gong and Li, 2017) or peer endorsement in traditional advertisement (e.g., Munnukka et al., 2016), or both. Although some of these variables (e.g., attractiveness and happiness) have been tested in the consumer selfie research (Liu and Foreman, 2019, Nanne et al., 2021), other variables that are prominent qualitative consumer selfie research, such as unfit consumer/ brand images, that have not been empirically validated (Presi et al., 2016, Rokka and Canniford, 2016).

Therefore, this thesis contributes to examining more holistically the influences of positive cues of peer endorser characteristics in consumer selfies that may associate with consumer selfie attitude via superficial processing path.

### *3.2.1.1. Endorser Attractiveness*

An individual's physical attractiveness refers to the extent to which the person is perceived by the observers as possessing an appealing and pleasing physical appearance (Ahearne et al., 1999). Although Erdogan (1999) argued that attractiveness means not only having physical beauty but also having virtuous characteristics (e.g., intellectual skills and personality), this research only focuses on the physical attractiveness of the peer endorsers as most endorsement studies (e.g., Gong and Li, 2017, Till and Busler, 2000).

People pay more attention to and are influenced by attractive individuals (Griskevicius and Kenrick, 2013) and this can happen unconsciously (Becker et al., 2005). Physically attractive individuals are perceived to have better personalities, such as being more sociable, mentally healthy, sexually warm and intelligent, than physically unattractive people (Feingold, 1992). The positive effects of attractiveness on endorsement effectiveness (e.g., ads attitude, brand attitude and purchase intention) have been found for unknown models in the print advertisement (Xiao and Ding, 2014) and peer endorsers featured in the TV advertisements (Munnukka et al., 2016). However, recent research on celebrity social media endorsement found attractiveness has nonsignificant relationships with advertisement effectiveness on the platform of social media (Gong and Li, 2017). They argued that since attractiveness is a general feature of almost all celebrity endorsers, it may decrease its effect on attracting audiences' attention. By contrast, in the context of consumer selfies, ordinary peers who usually have average looks and are unknown. Hence, attractive peers still stand out and positively affect viewer attitudes. In fact, the existing research on consumer selfies conducted by Liu and Foreman (2019) showed that attractiveness of peer endorsers has a positive association with viewers' brand attitudes. Therefore, the following hypothesis is developed:

**Hypothesis 1. The perceived attractiveness of the endorser in a consumer selfie is positively related to consumer selfie attitude.**

### *3.2.1.2. Endorser-Brand Fit*

Endorser-brand fit refers to the perceived similarity or consistency between the images of the brand and an endorser in an advertisement (Albert et al., 2017). According to social adaptation theory (Homer and Kahle, 1986), people assimilate expected information to the existing knowledge, while accommodate mental structures to incorporate novel and unexpected information. An incongruent endorser in the advertisement requires more mental effort to process, hence people only rely on the endorser as an information source when congruence exists on some relevant attributes (Kamins, 1990, Homer and Kahle, 1986). Therefore, endorser-brand fit has been found a critical driver of endorsement effectiveness in the advertising (Choi and Rifon, 2012, Albert et al., 2017, Torres et al., 2019).

Ordinary peer endorsers may convey subtle meanings through consumer selfies, such as their body types, ethnicities, social backgrounds, and maybe personality and lifestyle (Presi et al., 2016). Due to ordinary consumers' diversity and variety, some consumer selfies confirm and reinforce the brand meanings, while others may interfere and undermine brand image by delivering heterogeneous brand meaning and aesthetics (Presi et al., 2016). For instance, Rokka and Canniford (2016) found a great number of consumer selfies have unfit images with brand identities and their projected lifestyles, which they argued may have detrimental impacts on the brands. Despite its potential influence, endorser-brand fit has not yet been examined in the context of consumer selfies. Based on the existing endorsement literature, this study hypothesizes that:

**Hypothesis 2. The perceived endorser-brand fit in a consumer selfie is positively related to consumer selfie attitude**

### *3.2.1.3. Endorser-Viewer Similarity*

Endorser-viewer similarity refers to the consumer's inference of the similarity between some characteristics of the endorser and characteristics of the consumer (e.g., reality or desire of

having the represented lifestyle) (Aaker et al., 2000). Previous research has found that similarity plays an important role, especially in peer endorsement advertising effectiveness (Sorum et al., 2003, Munnukka et al., 2016). The influence of peer endorsers partly derives from consumer identification with the peer endorser (Sorum et al., 2003, Munnukka et al., 2016, Thompson and Malaviya, 2013). Based on social identity theory (Tajfel et al., 1979), when consumers identify with a social group, they develop in-group favouritism and conformity to maintain favoured social identities and meet self-verification goals (Turner et al., 1979, Escalas and Bettman, 2003).

Consumer selfies offer a peek into the person's look and life (Presi et al., 2016), which enable viewers to make inferences of the demographic information (e.g., gender, age, occupation, socioeconomic status, or geographic location) and personal information (e.g., appearance, hobbies, interests or perceived personality) (Sorum et al., 2003). This thesis argues that the average looks and lifestyles of ordinary peers are likely to activate perceived similarity with viewers that lead to positive attitudes, such as their potentially similar posting visual styles (Argyris et al., 2020) and attractiveness levels (Bekk et al., 2017). Therefore, the next hypothesis is formulated as follows:

**Hypothesis 3a. The perceived similarity between the endorser and the viewer in a consumer selfie is positively related to consumer selfie attitude**

#### *3.2.1.4. Endorser Happiness*

Endorser happiness refers to the perceived happy emotions of the endorser, which is one of the basic positive emotions of a person (Laros and Steenkamp, 2005). According to emotional contagion theory, people automatically mimic and synchronise with the other person's expression, and consequently experience the emotion (Hatfield et al., 1993). Several advertisement research has found the smiles of endorsers have positive impacts on consumer attitudes and behaviours toward the ad and brand (Trivedi and Teichert, 2019, Ilicic and Brennan, 2020, Kulczynski et al., 2016).

Moreover, in recent consumer selfies research, Nanne et al. (2021) demonstrated that happy- as compared to neutral-looking peer endorsers increase viewers' intention to "like" the post and brand attitude. To assess source happiness, existing studies have mostly manipulated the facial expression of the endorser to show the superior effects of smiling faces to non-smiling faces (e.g., Nanne et al., 2021, Chen et al., 2019, Kulczynski et al., 2016). For example, in recent consumer selfies research, Nanne et al. (2021) demonstrated that happy- as compared to neutral-looking peer endorsers increase viewers' intention to "like" the post and positive brand attitude. However, not all types of smiles are interpreted equally, for example, Duchenne smiles are perceived as happier than non-Duchenne smiles (Sheldon et al., 2021). Furthermore, the same smile can be interpreted into different emotions in different context conditions (Krumhuber et al., 2021). Due to the variety of faces and contextual cues displayed in consumer selfies, this thesis directly measures consumers' perception of endorser happiness in this study, following Laros and Steenkamp's (2005) approach to measuring happy emotion. The hypothesis is formulated that:

**Hypothesis 4a. The perceived happiness of the endorser in a consumer selfie is positively related to consumer selfie attitude.**

### **3.2.2. Characteristics for Deep Processing**

According to attribution-based framework (Kapitan and Silvera, 2016), in the process of deep processing, perceptions of endorser expertise and trustworthiness are key for viewers to internalise the endorsement message and adopt the belief as their own (i.e., internalisation) and more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016). Since viewers barely have information (e.g., profession and experience) to judge the credibility/expertise of an unknown peer endorser in consumer selfies, this thesis argues that they may rely on the inference of the peer endorsers' motives to judge their endorsement content (Kelley, 1973). For example, peers often post the brand-related contents to show off the brands to other consumers (Rokka and Canniford, 2016, Ferraro et al., 2013) and to gain material rewards provided by marketers (Kim and Lee, 2017), which may affect viewers attitudes toward the content.

Moreover, this thesis argues that the motivations of the endorsers distinguish peer endorsers in consumer selfies from those in conventional endorsement advertisements: Endorsers in advertisements are paid and intentionally designed to portray a brand in a positive light; by contrast, peer endorsers promote the brands voluntarily and communicate the actual consumer experiences (Nanne et al., 2021, Presi et al., 2016). Therefore, it is important to consider the perceived motives of peer endorsers when applying advertising theories in the context of consumer selfies. Based on these arguments, the relationships between peer endorsers' motives and consumer selfie attitudes are examined in this study via the deep processing path.

### *3.2.2.1. Endorser Monetary-Gain Motive*

Thanks to companies' increasing interest in encouraging consumers to post selfies in marketing campaigns (Hartmann et al., 2021), consumers may post brand-related content to gain material rewards (i.e., sponsored UGC), such as money, free product samples, and gift cards (Kim and Song, 2018). According to attribution theory (Kelley, 1973), observers tend to infer motives for other people's behaviours. Attributions consumers make during exposure to endorsed messages are a critical determinant of endorser effectiveness: If brand endorsement behaviour is viewed as occurring due to the dispositions or personality of the endorser, consumers are more likely to have favourable attitudes toward the advertisements (Kapitan and Silvera, 2016, Sorum et al., 2003). By contrast, perceived commercial interests (Mayrhofer et al., 2020) or perceived self-serving motive (Shan et al., 2019) in brand content on social media trigger negative affective reaction to the post. Previous research has demonstrated that the monetary-gain attributions in posts on Twitter negatively influence consumer responses (e.g., brand attitude) (Kim and Lee, 2017, Kim and Song, 2018). Likewise, the perceived monetary-gain motive in consumer selfies may generate unfavourable attitudes among viewers. Hence, this study hypothesizes that:

**Hypothesis 5a. The perceived monetary-gain motive of the endorser in a consumer selfie is negatively related to consumer selfie attitude**

### *3.2.2.2. Endorser Conspicuous Brand Usage*

Conspicuous brand usage refers to a situation where an individual blatantly uses a brand to get attention (Ferraro et al., 2013), which is a common phenomenon in the context of consumer selfies (Sung et al., 2018, Presi et al., 2016, Rokka and Canniford, 2016). For example, in Rokka and Canniford's (2016) case study of luxury champagne consumer selfies on Instagram, many posters conspicuously display brands as a visual sign of wealth and success, especially in the rap and hip-hop culture. In fact, Sung et al. (2018) found that consumer selfie posters tend to be individuals who use brands as a way of deliberate self-presentation and identity construction. However, due to the historically-established negative beliefs of materialistic and conspicuous consumption (Belk, 1983) and violation of social norms of modesty (Godfrey et al., 1986), flaunting brands on social media may lead to negative responses (Sekhon et al., 2015). Research has found that viewers are more likely to make negative evaluations of people who use luxury brands, such as being more prideful and less prosocial (McFerran et al., 2014). Furthermore, Ferraro et al. (2013) showed that the conspicuous display of a brand, regardless of whether it is a conspicuous brand, leads to viewers' unfavourable attitude towards the brand user. This thesis argues that flaunting brands in consumer selfies may be associated with materialism and lack of modesty, which generate unfavourable attitudes among observers (Belk, 1983, Ferraro et al., 2013). Hence, the following hypothesis is formed:

**Hypothesis 6a. The perceived conspicuous brand usage by the endorser in a consumer selfie is negatively related to consumer selfie attitude**

### **3.3. The Mediating Role of Endorser Authenticity**

Attribution-based framework (Kapitan and Silvera, 2016) suggests that dispositional attributions consumers make about how much an endorser likes, uses, and truly values the endorsed product are the key to achieving endorsement effectiveness. Moreover, the influences of endorser characteristics from the superficial and deep paths are both processed via attribution consumers make about the endorsers' behaviour and intention, which results in effective endorsements.



Based on their framework (Kapitan and Silvera, 2016) and prior work on endorsement (Ilicic et al., 2018), this thesis argues that perceived endorser authenticity as an innate characteristic, which compasses the dispositional attribution, plays the mediator role in the context of consumer selfies. Endorser authenticity represents the perception that one behaves according to their true self and being real and genuine (Ilicic et al., 2018, Moulard et al., 2015). Noticeably, unlike other endorser characteristics in this study that are directly perceptible attributes (e.g., attractiveness) and behaviours (e.g., conspicuous brand usage) in consumer selfies, perceived endorser authenticity is an inner trait, which is conceptually different from other endorser characteristics.

Perceived endorser authenticity has been found to explain the effects of endorsers on endorsement outcomes (e.g., brand and ad attitude), such as their looks (e.g., facial features) (Ilicic and Brennan, 2020, Ilicic et al., 2018), actions (e.g., brand mentions) (Jun and Yi, 2020, Hu et al., 2020) and types (e.g., celebrity vs. influencer) (Kapitan et al., 2022). This thesis expects endorser authenticity to play a prominent role in the consumer selfie context for the following reasons: First, peer endorsers, compared to paid celebrity endorsers, are generally considered to post brands voluntarily on social media (Jin, 2018, Kim and Lee, 2017), which thus perceived as more authentic. Second, peer endorsers usually have an average and natural look which again intensifies the perceived authenticity (Ilicic et al., 2018). Third, consumer photos often endow spontaneous and natural aesthetics that are perceived as more credible compared to traditional studio aesthetics (Colliander and Marder, 2018), which may highlight authenticity.

According to the existing literature and the context of this study, this thesis posits four characteristics of peer endorsers (i.e., similarity, happiness, monetary-gain motive and conspicuous brand usage) influence viewers' consumer selfie attitudes via perceptions of authenticity. Identifying this underlying mechanism is important in consumer selfies research because no consumer selfies studies have successfully verified a mediator in their models to explain the effects of peer endorser characteristics (e.g., Nanne et al., 2021). By examining the mediating effects, this thesis aims to offer explanations behind the effects of some endorser characteristics on consumer selfie attitudes.

Detailed discussions about the relationships between these endorser characteristics and endorser authenticity are presented in the following sections and organised as follows: First, the associations between endorser characteristics with endorser authenticity in the superficial processing path are proposed (section 3.3.1.). Next, the relationships between endorser characteristics with endorser authenticity in the deep processing path are proposed (section 3.3.2.). Next, section 3.3.3. hypothesizes the relationship between endorser authenticity and consumer selfie attitude. Last, section 3.3.4. constructs the hypotheses regarding the mediating effects of endorser authenticity.

### **3.3.1. Characteristics for Superficial Processing**

In the path of superficial processing, viewers tend to superficially examine the endorsed message and be influenced by superficial endorser characteristics (e.g., likeability and good product-endorser fit) (Kapitan and Silvera, 2016). Under this condition, superficial positive endorser characteristics lead to a correspondence bias that the endorser truly uses and values the product (Cronley et al., 1999). This spurs a sense of identification (i.e., the desire to become like an endorser) with the endorsement, hence a more effective endorsers (Kelman, 1961b, Kapitan and Silvera, 2016). Based on the existing literature and the context of this study, two of the four superficial characteristics of peer endorsers (i.e., endorser-viewer similarity and endorser happiness) are proposed to influence consumer selfie attitude via perceptions of authenticity.

#### *3.3.1.1. Factors That Are Not Related to Endorser Authenticity*

According to previous research and the context of this research, two of six endorser characteristics (i.e., attractiveness and endorser-brand fit) are suggested not to lead to an over-generalisation effect on perceptions of authenticity, explained as follows.

First, this thesis expects no significant relationship between endorser attractiveness and endorser authenticity. Based on the attractiveness halo effect, physically attractive individuals are perceived as more sociable, mentally healthy, and intelligent (Feingold, 1992). In the endorsement context, Kapitan and Silvera (2016) argued that attractiveness can drive favourable attribution about the endorser which should positively associate with perceived authenticity (Moulard et al., 2015). However, the relationship between physical attractiveness and perceived trustworthiness is found to be complex and nonlinear (Li and Liu, 2021). In fact, Ilicic et al. (2018) demonstrated that attractive endorser features (i.e., symmetrical face) are perceived as fake, unnatural and inauthentic. Based on these findings, no significant relationship is hypothesized between attractiveness and endorser authenticity in this study.

Likewise, this thesis predicts that endorser-brand fit has no significant association with endorser authenticity in consumer selfies. In the endorsement literature, the absence of congruency arouses suspicion of the celebrity's financial motives for endorsing the brand (Kamins and Gupta, 1994), which could result in negative evaluations of endorser authenticity (Moulard et al., 2015). However, this is not the case with peer endorsement: Due to the diversity of ordinary consumer types, it is common to see consumer selfies with different levels of brand congruence, especially the bad fit between the endorser and brand (Rokka and Canniford, 2016). Consequently, the lack of congruency does not trigger viewers' negative thoughts about the peer endorsers (e.g., monetary incentives). Therefore, this thesis argues that there is no relationship between endorser-brand fit and endorser authenticity in the context of consumer selfies.

### *3.3.1.2. Endorser-Viewer Similarity*

Since social identification is driven by the desire to preserve a relationship that is important to the person's self-image (Kelman, 1961b), the increasing similarity between the viewer and the

endorser highlights a shared identity and motivates the viewer to think the endorser in a positive light (Thompson and Malaviya, 2013). For example, the linkage between perceived similarity and perceived competence has been verified in the endorsement literature (Phua, 2016). When perceived similarity is low, consumers feel more sceptical about the endorser (Thompson and Malaviya, 2013). Moreover, the perceived similarity increases viewers' perceptions of trustworthiness, goodwill and favourable disposition toward the endorser (Sorum et al., 2003, Phua, 2016). These characteristics contribute to an individual's rarity (e.g., their ability and proficiency) and stability (e.g., their reliability, candidness and morality), which are identified as important components of one's perceived authenticity (Moulard et al., 2015, Ilicic and Webster, 2016). Further, this thesis argues that perceived similarities between endorsers and viewers may create a sense of connectedness and familiarity, which further enhances the perception of authenticity (Ilicic and Webster, 2016, Nunes et al., 2021). Thus, this thesis hypothesizes:

**Hypothesis 3b. The perceived similarity between the endorser and the viewer in a consumer selfie is positively related to perceived authenticity of the endorser**

### *3.3.1.3. Endorser Happiness*

A smiling person, especially with a smile of happiness, is generally considered more likeable, and subsequently evokes a halo effect for other positive traits such as being intelligent, good, bright, nice and pleasant (Lau, 1982, Frank et al., 1993). For example, previous research has found smile increases a person's perceived trustworthiness (Krumhuber et al., 2007). However, existing consumer selfie research failed to verify the role of endorser credibility in explaining the influence of smiling peer endorsers on consumers' responses (Nanne et al., 2021). On the other hand, endorser authenticity was confirmed to mediate the interaction effect of the endorser's genuine smile and direct eye gaze on consumer responses to the ads (Ilicic and Brennan, 2020). Furthermore, Kapitan and Silvera (2016) argue that the positive emotions of endorsers may induce viewers to think the endorsers genuinely enjoy the advertised products. As genuineness is related to the endorser authenticity (Moulard et al., 2015), this study hypothesizes that:

**Hypothesis 4b. The perceived happiness of the endorser in a consumer selfie is positively related to perceived authenticity of the endorser**

### **3.3.2. Characteristics for Deep Processing**

In the path of deep processing, viewers carefully process the message and they internalize a message when sufficiently persuaded by the endorser's brand choice. This thesis argues that viewers' perceptions of the peer endorsers' motives are key to inferring that the endorser has an authentic preference for a product, which further affects their attitudes toward the peer endorsement (Kelley, 1973, Kapitan and Silvera, 2016). According to the existing literature and the context of this study, two perceived motives of peer endorsers (i.e., monetary-gain motive and conspicuous brand usage) are proposed to affect consumer selfie attitude via perceptions of authenticity.

#### *3.3.2.1. Endorser Monetary-Gain Motive*

Peers on social media are generally perceived as a more reliable and believable source compared to companies or celebrities (Jin, 2018). However, these superior endorser effects are offset when peers recommend brands to gain monetary rewards rather than altruistic motives (Kim and Lee, 2017). Candidness and consistency comprise important dimensions of endorser authenticity, which represents that endorsers honestly and openly speak about what they think, and stay consistent regardless of circumstances (Moulard et al., 2015). Moreover, Moulard et al. (2015) claimed that an authentic endorser should have morality and demonstrate strong values and principles. In addition, recent research on a broader conceptualisation of authenticity (Nunes et al., 2021) also emphasises the importance of integrity, which refers to a source acting with its intrinsic motivations instead of its financial interest, and behaving autonomously and consistently over time. On the contrary, endorsing brands for material rewards gives the impression that endorsers recommend products that they do not actually believe are good (Kapitan and Silvera, 2016), which violates the endorser's true self (Moulard

et al., 2015). Accordingly, peer endorsers who post consumer selfies for monetary reasons may be perceived as inauthentic, hence this thesis hypothesise that:

**Hypothesis 5b. The perceived monetary-gain motive of the endorser in a consumer selfie is negatively related to the perceived authenticity of the endorser**

### *3.3.2.2. Endorser Conspicuous Brand Usage*

In conspicuous consumer selfies, posters use brands to establish a positive self-presentation (Sung et al., 2018) and gain “attentional capitals”, such as shares, likes and followers on social media (Rokka and Canniford, 2016). This is in contrast to discretion, a critical part of endorser authenticity, which refers to inconspicuousness (Moulard et al., 2015). For instance, celebrities who do not seek publicity and limit their exposure are considered to have the quality of discretion (Moulard et al., 2015). Furthermore, conspicuous brand users are perceived as driven by ulterior motives of impression management, such as gaining social approval (Ferraro et al., 2013), instead of dispositional reasons that they inherently like the brands (Kapitan and Silvera, 2016). This contradicts the notion that authentic people behave according to their true self, and do not change their opinions to what others want (Moulard et al., 2015). Lastly, authenticity is perceived as performing in adherence to shared norms and standards (i.e., legitimacy) (Nunes et al., 2021). On the contrary, conspicuous brand usage links to negative social beliefs of materialistic consumption (Belk, 1983) and violates the social norms of modesty (Godfrey et al., 1986). Based on these arguments, this study hypothesizes that:

**Hypothesis 6b. The perceived conspicuous brand usage by the endorser in a consumer selfie is negatively related to perceived authenticity of the endorser**

### **3.3.3. Endorser Authenticity and Consumer Selfie Attitude**

When endorsers are perceived as being genuine and real, viewers are more likely to form a positive attitude towards the endorsers and the advertisements (Ilicic et al., 2018, Kapitan and Silvera, 2016). An authentic endorser encourages a sense of connectedness and emotional attachment with viewers (Ilicic and Brennan, 2020, Kowalczyk and Pounders, 2016), which positively influences word-of-mouth and purchase likelihood (Zafar et al., 2021, Kowalczyk and Pounders, 2016). In addition, the perceived authenticity of politicians' Twitter communication induces more positive evaluations of the politicians and their tweets (Lee et al., 2020). Based on these findings, this study argues that perceptions of peer endorser authenticity has positive spill-over effects in the evaluation of their endorsed contents. Therefore, this study hypothesizes:

**Hypothesis 7. The perceived authenticity of the endorser in a consumer selfie is positively related to consumer selfie attitude**

### **3.3.4. Mediation Effects**

Through the theoretical lens of Kapitan and Silvera's (2016) attribution-based framework, perceived endorser authenticity is expected to mediate the linkages between endorser characteristics and consumer selfie attitude. When viewers are not thinking carefully (i.e., superficial processing), positive cues, such as the happiness and similarity of a peer endorser, lead to a correspondence bias that the endorser truly uses and values the product (Cronley et al., 1999). When viewers reflect more deeply on the consumer selfies (i.e., deep processing), cues about the peer endorsers' motives (Kelley, 1973), such as perceived monetary-gain motive, are key to inferring that the endorser has an authentic preference for a product (Kapitan and Silvera, 2016). Moreover, the perception of authenticity resulted from the both paths lead to effective endorsements.

It has been suggested in the literature that perceived endorser authenticity can mediate the relationships between endorsement outcomes (e.g., brand and ad attitude) and endorsers' looks (e.g., facial features) (Ilicic and Brennan, 2020, Ilicic et al., 2018), actions (e.g., brand mentions) (Jun and Yi, 2020, Hu et al., 2020) and types (e.g., celebrity vs. influencer) (Kapitan et al.,

2022). For example, research has found that perceived authenticity mediates the effects of the physical appearance of endorsers on advertisement effectiveness (Ilicic and Brennan, 2020, Ilicic et al., 2018). According to ecological theory, the physical appearance of an individual leads to biased perceptions of their personality traits (i.e., over-generalisation effect) (Zebrowitz and Montepare, 2008). As an over-generalisation effect related to source authenticity, endorsement research has found physical features such as asymmetrical facial structure, freckles and moles (Ilicic et al., 2018), direct eye gaze and smile (Ilicic and Brennan, 2020) influence consumers' perceptions of the endorser authenticity, which leads to advertisement effectiveness.

Based on the existing literature and the specific context of this research, this thesis posits that endorser-viewer similarity, endorser happiness, monetary-gain motive and conspicuous brand usage indirectly influence consumer selfie attitude through perceived endorser authenticity. Accordingly, the following hypotheses are constructed:

**Hypothesis 8. The perceived authenticity of the endorser mediates the influences of (a) perceived endorser-viewer similarity, (b) perceived endorser happiness, (c) perceived endorser monetary-gain motive, and (d) perceived endorser conspicuous brand usage on consumer selfie attitude.**

### **3.4. Consumer Selfie Attitude and Endorsement Effects**

This thesis conceptualises consumer selfie attitude as the direct outcome of endorser characteristics, which transfers to other endorsement effects, including consumer selfie engagement (section 3.4.1.), brand attitude (section 3.4.2.), and purchase intention (section 3.4.3.).

#### **3.4.1. Consumer Selfie Engagement**



Consumers' engagement with consumer selfies refers to consumers' engagement with the post such as like, comment and share the posts (Schivinski et al., 2016). Consumers' engagement with brand content plays a key role in determining the effectiveness of social media advertising and endorsement (Voorveld et al., 2018, Shan et al., 2019). According to the theory of planned behaviour (TPB) (Ajzen, 1985), positive attitudes lead to stronger intentions to perform an actual behaviour. Scholars have found that the attitude towards brand posts contributes to consumer engagement intention and behaviours in the context of the social media advertisement (Kujur and Singh, 2016, Wang, 2021). Consumer selfie research has found that consumer selfies in general generate more viewer engagements (i.e., likes and comments) than product-centric images (i.e., brand selfies) (Hartmann et al., 2021). However, no research has tested whether a positive consumer selfie attitude will create a greater intention to engage with consumer selfies. Thus, the following hypothesis is developed:

**Hypothesis 9. Consumer selfie attitude is positively related to engagement with the consumer selfie.**

### **3.4.2. Brand Attitude**

The enjoyment of the UGC on social media has been shown to affect brand attitude positively (Yu and Ko, 2021). If consumers perceive a Br-UGC to be a pleasure or fun to see, they are more likely to perceive the brand in the content more favourably (Yu and Ko, 2021). However, when a brand is associated with a disliked person, people will have a negative evaluation of the brand because of a decreased self-brand connection (White and Dahl, 2007). Furthermore, the influence of attitude towards the advertisement on attitude towards the brand has been well documented in the endorsement advertising literature (MacKenzie et al., 1986, Choi and Rifon, 2012). Although previous consumer selfie research has studied the effects of endorser characteristics on brand attitude (Nanne et al., 2021, Liu and Foreman, 2019), the relationship between consumer selfie attitude and brand attitude has not yet been examined. It is interesting to study if consumer selfie attitude has a positive relationship brand attitude as the effects of traditional advertisements. As such, the following hypothesis is posited:

**Hypothesis 10. Consumer selfie attitude is positively related to attitude towards the brand.**

### **3.4.3. Purchase Intention**

Marketing scholars have found that purchase intention is influenced positively by attitudes toward various branded content, such as sponsored brand recommendation posts (Lu et al., 2014), word of mouth on social media (Erkan and Evans, 2016), and celebrity endorsed advertisements (Singh and Banerjee, 2018). The theory of planned behaviour (TPB) (Ajzen, 1985) suggests that behavioural intention is predicted by a person's attitude towards the behaviour. Existing studies on consumer selfies have focused on the influences of consumer selfie characteristics (e.g., facial expressions) on purchase intention, but found nonsignificant influences (Nanne et al., 2021, Hartmann et al., 2021). Instead, this thesis tests the relationship between the consumer selfie attitude and purchase intention. It is expected that the positive attitude towards other people having a brand in consumer selfies may increase their own purchase intention. Based on these arguments, the next hypothesis is developed:

**Hypothesis 11. Consumer selfie attitude is positively related to purchase intention.**

## **3.5 Summary**

In summary, six characteristics (i.e., endorser attractiveness, endorser-brand fit, endorser-viewer similarity, endorser happiness, endorser monetary-gain motive and endorser conspicuous brand usage) are expected to relate to consumer selfie attitude. Apart from direct relationships, four characteristics (i.e., endorser-viewer similarity, endorser happiness, endorser monetary-gain motive and endorser conspicuous brand usage) are also expected to indirectly associate with attitude towards the consumer selfie through endorser authenticity. Finally, consumer selfie attitude is proposed to positively associate with endorsement effects (i.e., consumer selfie engagement, brand attitude, purchase intention). The following chapter discusses the design of the research and the methods used to test these hypotheses.

## **4. Chapter Four: Methodology**

## **4.1. Chapter Preview**

This chapter presents the methods and procedures used to test the hypothesized model empirically. To test the hypotheses, this thesis uses a quantitative approach and data collected through an online survey. The chapter is structured as follows. First, section 4.2. introduces the adopted research philosophy. Section 4.3. introduces how the instrument is developed. Section 4.4. discusses the process of selecting the research population and sampling. Section 4.5. offers a discussion of ethical considerations in this study. Section 4.6 describes the steps taken to analyse the data. Finally, section 4.7 concludes the chapter.

## **4.2. Rationale for Methodology**

This study's methodology is guided by a positivist worldview, emphasizing objective reality and quantitative methods. An online self-report survey is chosen to test hypotheses, offering scalability and enabling efficient exploration of relationships between endorser characteristics and consumer selfie attitudes. The details are explained as follows.

### **4.2.1. Research Philosophy**

Every researcher holds different research philosophies that can be described by ontology and epistemology. Ontology represents the fundamental views of the researcher on what the world is (Easterby-Smith et al., 2021). Ontology is concerned with the nature of reality and being (Ponterotto, 2005). Epistemology represents the researcher's views on how the research understands the world (Easterby-Smith et al., 2021). Epistemology concerns the relationship between the research participants and the researcher (Ponterotto, 2005).

There are mainly two contrasting research philosophies, namely positivism and interpretivism. Positivism believes in a single reality that is independent of the researchers, and it can be measured through objective methods without bias (Easterby-Smith et al., 2021, Ponterotto,

2005). Interpretivism (also known as social constructionism), on the other hand, believes that there exists multiple socially constructed realities with multiple meanings given by people (Easterby-Smith et al., 2021). Moreover, interpretivists hold that the dynamic interaction between researcher and participants is key to capturing and describing the reality of the participant (Ponterotto, 2005). Overall, positivism has been the dominant research paradigm adopted by social scientists (Ponterotto, 2005).

Research philosophies impact research designs. Positivists use deductive reasoning that works from a theory to a specific problem (Ponterotto, 2005). Thus, in positivism, a quantitative approach is the accepted means of testing a priori hypothesis (Creswell, 2008, Ponterotto, 2005). Quantitative studies focus on the measurement and analysis of causal or correlational relationships between variables (Denzin and Lincoln, 2005). On the other hand, interpretivists use inductive reasoning that works from specific observations to generalised theories. Therefore, they tend to adopt qualitative methods to explore the meanings others have about the world (Creswell, 2008). Qualitative method refers to procedures designed to interpret the experience of participants in a specific context (Denzin and Lincoln, 2005). Despite the difference, both qualitative and quantitative are empirical methods that involve the collection, analysis, and interpretation of observations or data (Ponterotto, 2005).

#### **4.2.2. Research Approach and Method**

This thesis is conducted along a positivist worldview, where I believe there is an objective reality that can be measured regardless of my personal views. Accordingly, the thesis tests the hypotheses by examining the relationships between endorser characteristics and consumer selfie attitude via endorser authenticity. Specifically, online self-report survey is adopted as a method because it is an effective method to measure people's opinions, feelings, and thoughts (Malhotra, 2006). As a quantitative research method, a survey design is good for identifying patterns and making generalizations (Malhotra, 2006).

Compared to face-to-face surveys, online surveys enable researchers to collect a large number of responses in a shorter amount of time, with wider geographic reach and lower cost (Duffy

et al., 2005). Moreover, the online survey method is easier to export responses for data analysis and eliminates the presence of an interviewer that may cause social desirability bias (Duffy et al., 2005, Couper, 2000). In addition, the online survey method has the advantage of delivering survey instruments, such as audiovisual material, in a consistent and reliable way (Couper, 2000). Particularly, in this study, it effectively simulates a context similar to social media where consumer selfies are generated. Exposure to a visual stimulus in an online setting at the time respondents answer the survey is expected to illustrate a situation wherein viewers encounter consumer selfies during their online activities.

Previous research on consumer selfies used experiments to determine if a specific treatment influences an outcome (Nanne et al., 2021, Hartmann et al., 2021). For example, Nanne et al. (2021) manipulated endorser factors (e.g., happy vs. neutral) and assess their effects on consumer selfie outcomes. In contrast to their study, this thesis uses a survey to describe each variable and to assess their statistical relationships. A survey is more appropriate than an experiment in this research because the hypothesized model includes six independent variables, which leads to an unfeasible number of distinct conditions and participants required for conducting experiments. Moreover, most of the independent variables in the model are difficult to be manipulated (e.g., endorser-viewer similarity), hence direct perceptual measures need to be used. In conclusion, an online survey is the most appropriate method for this research.

### **4.3. Instrument Development**

This section introduces how the research instruments are developed. It includes the steps to develop the consumer selfie stimuli (section 4.3.1.) and the questionnaires (section 4.3.2.). Besides, a pre-test was taken to ensure the validity of the stimuli in the questionnaires (section 4.3.3.).

#### **4.3.1. Stimuli Development**

This sections explains the process of developing stimuli for the study, focusing on the selection of products, brands, and consumer selfies. The rationale behind these choices and the methods employed are elucidated to provide clarity on the stimulus development process.

#### *4.3.1.1. Product and Brand Selection*

Sports shoes and coffee were chosen as product categories for several reasons: Firstly, # fashion and #food are two of the most popular hashtags on Instagram with 781 million and 376 million posts respectively, which result in a great number of posters and viewers of images featuring these products (Liu et al., 2019). Secondly, consumers commonly feature themselves in fashion and coffee related photos (i.e., band selfies) (Eagar and Dann, 2016). Thirdly, both sports shoes and coffee have been used as endorsed products in print advertising research featuring unknown endorser (Xiao and Ding, 2014), which are similar to the context of this study. Fourthly, they are unisex products consumed by all ages, so the brand would have appeal regardless of participants' gender or age.

Two sports shoe brands Puma and Reebok, with two coffee brands Starbucks and Costa, are investigated. All selected brands have a relatively high presence on Instagram in terms of followers and user tagged posts. Besides, to minimize any confounding effects, this study selected brands that have relatively similar market shares in the UK. Specifically, Puma and Reebok have similar numbers of customers in the UK (Statista, 2019a). Costa and Starbucks own the largest number of stores of coffee shop chains in the UK (Statista, 2019b). Other brands (e.g., Nike) were not chosen because of either much bigger or smaller consumer and shop numbers.

Although using real brands can reflect a reality situation, brand-related effects need to be taken into consideration. To eliminate the confounding effects of existing brands, existing endorsement research commonly relies on fictitious endorsements by pairing fictitious brands and endorsers (Choi and Rifon, 2012). However, the unnatural design may reduce the ecological validity (i.e., real-world relevance) of the study. Therefore, this research uses real

consumer selfies from real brands. Furthermore, to account for brand-related effects, viewers' brand familiarity is used as a control variable.

#### *4.3.1.2. Consumer Selfie Stimuli Selection*

This research uses consumer selfies from Instagram as stimuli, because Instagram is the most popular visual social media with 1 billion monthly active users (Mohsin, 2019). Real consumer selfies from Instagram users are adopted to reflect a realistic situation. However, as real consumer selfies include a variety of irrelevant elements (e.g., backgrounds), it is nearly impossible to isolate effects attributed to specific targeting independent variables. To address this limitation, this study uses a sufficiently large number of stimuli to ensure sufficient variance across all variables in the research model.

Non-probability sampling involves selecting items based on criteria other than random selection, while probability sampling ensures that every member of the population has an equal chance of being included in the sample (Malhotra, 2006). In contrast, probability sampling methods, such as simple random or stratified sampling, aim to create samples representative of the population and minimize bias in selection (Malhotra, 2006).

Convenience sampling technique is a type of non-probability sampling method that relies primarily on the researcher's discretion. It is employed when resources or time constraints limit the ability to select individuals systematically, instead opting for those readily available. In this study, Instagram only displays the latest posts on its front page, posing challenges in selecting random consumer selfies. Due to the researcher's limited time and budget as a PhD student, convenience sampling was utilized to gather consumer selfie samples on Instagram for its accessibility and efficiency compared to other sampling techniques (Malhotra, 2006). While convenient, this method may introduce bias and restrict generalizability as it does not ensure a representative sample. To reduce the risks, the selection of consumer selfies was spread across different days, details of the process are outlined below



90 samples per brand as stimulus were screenshotted from the most recent posts in the brands' tagged sections (e.g., @puma) on different days during April 2020. The selection applies the following criteria: (1) Each image includes only one person with a visible face. (2) Each image includes a tagged brand. Each screenshot of a consumer selfie post includes a consumer selfie photo, the poster's name and profile picture, and the number of likes. All the elements remain constant with the two exceptions. Firstly, the post with multiple brands only showed the corresponding brand tag on each chosen consumer selfie. The purpose of removing other tagged brands was that respondents can focus on evaluating only one brand and thus avoids confounding effects arising from other brands and the number of tags. Secondly, the locations, captions and comments included in the posts were also removed. This enabled the respondents to focus on the consumer selfie itself and avoid the confounding effects from the text contents, such as brand mentions (Hartmann et al., 2021). The sample stimuli for each brand are shown in Appendix A.

### **4.3.2. Questionnaire Development**

In section details the measures utilized in the study to assess various constructs in the questionnaire. The rationale behind the selection of each measure and their adaptation to suit the context of the study are elaborated upon.

#### *4.3.2.1. Measures*

This study uses perceptual measures for all constructs instead of experimental manipulation, because the evaluation of a person is rather subjective and varies depending on the viewer's personal preferences and experience. Moreover, measuring perceptions of endorser characteristics from the viewer's perspective can reflect a realistic situation. All indicators for constructs were adopted from prior studies and carefully adapted to suit the context of this study, as listed in Table 6 and explained as follows.

*Endorser attractiveness (ATT)*. Perceived endorser attractiveness was measured by a four-item, 7-point semantic differential scale developed by Ohanian (1990) that has been widely used in endorsement research (e.g., Munnukka et al., 2016): unattractive/attractive, ugly/beautiful, not sexy/sexy and bad looking/good looking (A score below the midpoint is negative and a score above the midpoint is positive). The subjects of the statements of measurement were modified from ‘endorser’ to ‘the person in the photo’ in order to reflect a consumer selfie context and avoid potential confusion for the respondents.

*Endorser-brand fit (FIT)*. Perceived brand-endorser fit was measured by a four-item, 7-point semantic differential scale developed by Choi and Rifon (2012) in endorsement research and modified to suit the context of this study, which consisted of not compatible/compatible, bad fit/good fit, irrelevant/relevant, and bad match/good match (A score below the midpoint is negative and a score above the midpoint is positive).

*Endorser-viewer similarity (SIM)*. Perceived endorser-viewer similarity was measured on a three-item, 7-point Likert scale developed by Munnukka et al. (2016) and revised to reflect the context of this study: “The person in the photo and I have a lot in common”, “The person in the photo and I are a lot alike”, and “I can easily identify with the person in the photo” (1= ‘Strongly disagree’ to 7= ‘Strongly agree’).

*Endorser happiness (HAP)*. The original measurement scale to assess perceived endorser happiness was developed by Laros and Steenkamp (2005), and the items were reduced from nine to four with the highest loadings. The measurement comprised four 7-point Likert scale items: I think the person in the photo is (1) happy, (2) joyful, (3) enthusiastic, and (4) pleased (1= ‘Strongly disagree’ to 7= ‘Strongly agree’).

*Endorser monetary-gain motive (MON)*. Perceived endorser monetary-gain motive was measured on a three-item, 7-point Likert scale adapted from existing measures of user-generated content on Twitter (Kim and Lee, 2017) and reworded to reflect the context of this study: I think the person posted and tagged the photo about brand x (1) because he/she is paid

by brand x for doing so (2) solely for money, and (3) to receive material rewards from the brand (1= 'Strongly disagree' to 7= 'Strongly agree').

*Endorser conspicuous brand usage (CON).* Perceived endorser conspicuous brand usage was measured on a three-item, 7-point Likert scale developed by Ferraro et al. (2013) and were reworded to reflect a consumer selfie context: I think the person in the photo is using brand x (1) to impress other people, (2) to show off, and (3) to gain approval from others (1= 'Strongly disagree' to 7= 'Strongly agree').

*Mediating variable: endorser authenticity (AUT).* Perceived endorser authenticity was measured using three-item 7-point Likert scale items originally developed by Moulard et al. (2015) that has been adopted in endorsement research (Ilicic et al., 2018): I think the person in the photo is (1) genuine, (2) real and (3) authentic (1= 'Strongly disagree' to 7= 'Strongly agree').

*Dependent variable: consumer selfie attitude (CSA).* Consumer selfie attitude was measured by a four-item, 7-point semantic differential scale developed by Mitchell and Olson (1981) that has been widely utilised in endorsement research (e.g., Munnukka et al., 2016): bad/good, unlikable/likeable, irritating/not irritating, and uninteresting/interesting (A score below the midpoint is negative and a score above the midpoint is positive). This study reworded the items by modifying the subjects from "advertisement" to "this photo".

*Consumer selfie engagement (CSE).* Consumer selfie engagement measures were originally used as three single items to measure the three types of UGC engagement behaviours (Kitirattarkarn et al., 2019) (i.e., the tendency to "like", comment and share). However, this study aims not to compare different types of engagement behaviours but to measure the overall viewer engagement behaviour. Therefore, the three items were combined into a formative construct, composing three different engaging behaviours: "I would 'like' this post", "I would comment on this post", and "I would share this post" (1= 'Extremely unlikely' to 7= 'Extremely likely').

*Brand attitude (BA).* Brand attitude was measured by a three-item, 7-point widely utilised scale drawn from Park et al. (2010), which has been used in endorsement studies (Albert et al., 2017): “I like brand x”, “I feel positive towards brand x”, and “I feel favourable towards brand x” (1= ‘Strongly disagree’ to 7= ‘Strongly agree’).

*Purchase intention (PI).* Purchase intention was measured by a 7-point scale that was originally developed by Dodds et al. (1991) and was later reduced from five to three by Filieri et al. (2018) in the context of eWOM. Moreover, the items were reworded to reflect the context of this study: “If I were buying for coffee (sports shoes), the likelihood of purchasing brand x is high.”, “The probability that I would consider buying brand x is high.”, and “My willingness to buy brand x is high if I were buying for coffee (sports shoes).” (1= ‘Strongly disagree’ to 7= ‘Strongly agree’).

*Control variable: brand familiarity (FAM).* Brand familiarity was measured by a 7-point semantic differential scale (Ferraro et al., 2013) preceded by the question “How familiar are you with the brand Puma?” and anchored with not at all familiar/ very familiar (A score below the midpoint is negative and a score above the midpoint is positive).

*Image quality (IQ).* This study also controls perceived image quality (Benoit et al., 2020) for potentially confounding influences from image-related variables. Image quality was measured by a 7-point semantic differential scale (Benoit et al., 2020), preceded by the statement “I think the photo quality is” and anchored with bad/ good (A score below the midpoint is negative and a score above the midpoint is positive).

In addition, *the number of likes (NL)* in each consumer selfie is also counted as a control variable for potential confounding social influence from other users (Liu and Foreman, 2019).

**Table 6. Indicators for constructs.**

Constructs	Indicators	Sources
Endorser attractiveness (ATT)	ATT1 - Unattractive/attractive ATT2 - Ugly/beautiful ATT3 - Not sexy/sexy ATT4 - Bad looking/good looking	(Ohanian, 1990)
Endorser-viewer similarity (SIM)	SIM1 - The person in the photo and I have a lot in common SIM2 - The person in the photo and I are a lot alike SIM3 - I can easily identify with the person in the photo	(Munnukk a et al., 2016)
Endorser-brand fit (FIT)	FIT1 - Not compatible/compatible FIT2 - Bad fit/good fit FIT3 - Irrelevant/relevant FIT4 - Bad match/good match	(Choi and Rifon, 2012)
Endorser happiness (HAP)	HAP1 - Happy HAP2 - Joyful HAP3 - Enthusiastic HAP4 - Pleased	(Laros and Steenkamp, 2005)
Endorser monetary-gain motive (MON)	I think the person posted and tagged the photo about brand x... MON1 - because he/she is paid by brand x for doing so MON2 - solely for money MON3 - to receive material rewards from the brand	(Kim and Lee, 2017)
Endorser conspicuous brand usage (CON)	I think the person in the photo is using brand x... CON1 - to impress other people CON2 - to show off	(Ferraro et al., 2013)

Constructs	Indicators	Sources
	CON3 - to gain approval from others	
Endorser authenticity (AUT)	AUT1 - Genuine AUT2 - Real AUT3 - Authentic	(Moulard et al., 2015)
Consumer selfie attitude (CSA)	CSA1 – Bad/good CSA2 – Unlikable/likeable CSA3 – Irritating/not irritating CSA4 – Uninteresting/interesting	(Mitchell and Olson, 1981)
Consumer selfie engagement (CSE)	CSE1 - I would 'like' this post CSE2 - I would comment on this post CSE3 - I would share this post	(Kitirattar karn et al., 2019)
Brand attitude (BA)	BA1 – I like brand x BA2 – I feel positive towards brand x BA3 – I feel favourable towards brand x	(Park et al., 2010)
Purchase intention (PI)	PI1 - If I were buying for coffee (sports shoes), the likelihood of purchasing brand x is high PI2 - The probability that I would consider buying brand x is high PI3 - My willingness to buy brand x is high if I were buying for coffee (sports shoes)	(Dodds et al., 1991)
Brand familiarity (FAM)	Not at all familiar/ very familiar	(Ferraro et al., 2013)

Constructs	Indicators	Sources
Image quality (IQ)	Bad/good	(Benoit et al., 2020)

#### 4.3.2.2. Procedure

In the questionnaire, 1 of 90 corresponding consumer selfies was randomly assigned to each respondent such that the selfie stimulus would not repeat to the second respondent until the number of respondents exceeds the number of selfies. This was necessary to reduce the variability in how many respondents are assigned to each stimulus. After viewing the selfie, respondents then answered questions about endorser characteristics and outcomes of consumer selfies. The selfie stimulus was repeated once in the questions to refresh the respondents' memories. At last, they indicated their usage frequency of Instagram, brand familiarity, purchase history and demographic questions (i.e., gender, age, education, and occupation).

In order to filter out unmotivated respondents, the survey used an instructed-response item as an attention check, where the item was embedded in a scale with an obvious correct answer (Kung et al., 2018). Specifically, this study instructed respondents to select the option 'Somewhat agree' to demonstrate their attention. As anyone who has read the item should be able to answer the item correctly, wrong answers indicate careless responses which will be filtered out (Kung et al., 2018).

#### 4.3.3. Pre-Test: Variance of Endorser Characteristics

To ensure that the selected stimuli have enough variance across all endorser characteristics, a small-scale survey (N=44) was conducted (See Appendix B). The respondents were recruited by Qualtrics using the same sampling screening criteria in the main study. In the pre-test survey, 80 consumer selfies (20 of each brand) were chosen from the 360 consumer selfies stimuli for

the main study. 20 out of 90 stimuli from each brand, as small-scale stimuli samples, were tested to ensure that all stimuli for the four brands have enough variance in the main survey. Note that the same stimuli that were used in the pre-test were reused in the main study with different surveys and respondents. In the pre-test survey, the respondents randomly saw 2 consumer selfies, one for sports shoes and the other for coffee. After each stimulus, they answered questions including all independent variables with only one item of each construct listed in Table 7. At last, they answered demographic questions such as gender, age and highest education level.

**Table 7. Indicators for constructs in pre-test.**

Construct	Indicator	Source
Endorser attractiveness	ATT1- Unattractive/attractive	(Ohanian, 1990)
Endorser-brand fit	FIT1- Good fit/bad fit	(Munnukka et al., 2016)
Endorser-viewer similarity	SIM1- I think the person in the post and I have a lot in common	(Laros and Steenkamp, 2005)
Endorser happiness	HAP1- I think the person in the post is happy	(Choi and Rifon, 2012)
Endorser conspicuous brand usage	CON1- I think this person in the post uses the tagged brand to show off	(Ferraro et al., 2013)



Construct	Indicator	Source
Endorser monetary-gain motive	MON1- I think this person posted about the brand because he/she is rewarded by the brand for doing so	(Mayrhofer et al., 2020)

In order to assess the variance of all independent variables in the research model, variance, mean, standard deviation, and coefficient of variation (CV) are tested in Table. CV is defined as the ratio of the standard deviation to the mean, which is commonly used for measuring diversity (Bedeian and Mossholder, 2000). As a result, the standard deviations of all independent variables are between 30% and 50% of the mean of them (Table 8). This means that constructs of consumer selfies characteristics have enough spread of the answers in the pretest. In conclusion, the results indicate that the scores of the measures that would be employed in the main survey are likely to vary enough to make the survey meaningful.

**Table 8. Relative variabilities of independent variables.**

Variable	Variance	Mean	Standard deviation	Coefficient of variance
Endorser attractiveness	3.536	4.57	1.880	.41
Endorser-brand fit	2.620	4.98	1.619	.33
Endorser-viewer similarity	2.644	3.24	1.626	.50
Endorser happiness	2.091	4.53	1.446	.32
Endorser conspicuous brand usage	2.444	4.38	1.563	.36
Endorser monetary-gain motive	2.936	4.58	1.714	.37

#### 4.4. Population and Sample

Since this research used consumer selfies from Instagram as stimuli, the sample is limited to Instagram users in the UK aged 18-44. The age group was chosen because it is the largest group of Instagram users in the UK (Johnson, 2020). It also fits well with the selected brands' target consumer groups (LAPASA, 2017).

A specialised sample size calculator for Structural Equation Models was used to estimate the required sample size (Soper, 2020). According to the hypothesized model, 14 latent variables and 40 observed variables were entered into the calculator. As a result, roughly 223 minimum sample size would be needed in order to reach a medium effect size (i.e., 0.3) with 80% power and 5% false positive rate. On top of this, the study decided to recruit as many respondents as possible given budgetary constraints. Initially, 400 respondents were decided to be recruited through Qualtrics online panel. Participants received incentives from Qualtrics for their participation.

Qualtrics is a commercial provider of online survey panels. Qualtrics collects data through its online panel by first recruiting diverse panellists who voluntarily sign up to participate in surveys, providing demographic and behavioural information. Researchers then define survey criteria, and Qualtrics matches these with panellists' profiles. Survey invitations are sent to selected panellists, who respond and provide data. Throughout the process, Qualtrics employs quality control measures to ensure accurate and reliable data collection. Once data is collected, researchers can analyse it using Qualtrics' tools and generate customizable reports for further analysis and decision-making (Qualtrics, 2020).

Based on their process, the data collected from Qualtrics online panel can be classified as a non-probability online sample. A non-probability sample is a subset of individuals selected from a population using methods that do not ensure every member of the population has an equal chance of being included. This approach is commonly used in research when it is impractical or impossible to obtain a random sample of the population of interest (Malhotra, 2006). However, Qualtrics maintains high-quality data by strategically selecting sample

partners: The majority of samples come from traditional, actively managed, double-opt-in market research panels and occasionally social media (ESOMAR, 2020). Further, Qualtrics has been found to be a more reliable data source, with its respondents more likely to resemble the general population compared to other survey companies, such as MTurk (Elizabeth et al., 2019, Boas et al., 2020)

#### **4.5. Ethical Considerations**

This research takes into ethical considerations issues involving the consumer selfies posters and the survey respondents. As for ethical consideration of data collection from the consumer selfie posters as Internet data owners, this study follows the guide of using Instagram data ethical consideration by Laestadius (2016). Specifically, the study only collects Instagram posts to which the creators apply @brand to render them searchable. Further, applying @brand makes the posts visible on the brand's official page, which ensures that the posts are not only publicly available but also expected to reach a wide audience.

As for ethical consideration of data collection from the survey respondents, a few measures are taken: First, this study protects the anonymity of the research respondents. This study only asks respondents to provide demographic information (i.e., age, gender, education level and ethnicity) but no personal details such as name or contact details to ensure respondents cannot be identified. The data was only analysed in aggregated form.

Second, the chosen survey company respects the confidentiality of respondents. Specifically, Qualtrics (<http://www.qualtrics.com/survey-panels/>) follows the guidelines for online research outlined by ESOMAR ([www.esomar.org](http://www.esomar.org)), the European Society for Opinion and Marketing Research to address best practices in handling ethical, methodological, and regulatory issues, and the legalities regarding technology in research. Qualtrics servers are located in Germany, where survey data will be stored, in line with the EU's GDPR. Qualtrics' servers hold all survey responses but no sensitive or confidential panellist information. Qualtrics' database access is restricted and requires authorization. Besides, Qualtrics does not share participants' personal

information with clients. Hence, the researchers cannot access to these participants' personal information.

Third, this research ensures voluntary participation. Specifically, the survey contains an informed consent form explaining the study's purpose, procedures, and their rights to complain. Consent to participate in the study was implied by selecting a box indicating their agreement of taking part in the survey, which enabled them to proceed to the survey.

Last, the collected data were stored in a safe computer drive and protected by a password, which guarantees that only the researcher can access the data. Furthermore, this survey study was reviewed and approved by the ethics panel at the University of York (elmps-ethics-group@york.ac.uk).

## **4.6. Data Analyses Approach**

This section introduces the data analysis approach in this thesis, including the rationale for using the PLS-SEM approach (section 4.6.1.), the introduction of basic PLS-SEM steps (section 4.6.2.), and the introduction of mediation analysis (section 4.6.3.).

### **4.6.1. PLS-SEM Rationale**

Structural equation modelling (SEM) has become quasi-standard in marketing research when it comes to analysing cause-effect relations between latent constructs (Hair et al., 2011). There are two types of SEM, Partial Least Squares Structural Equation Modelling (PLS-SEM) and covariance-based SEM (CB-SEM). PLS-SEM is a causal modelling approach aimed at maximizing the explained variance of the dependent latent constructs (Hair et al., 2011). On the contrary, CB-SEM is aimed at reproducing the theoretical covariance matrix, without focusing on explained variance (Hair et al., 2011).

This research selected PLS-SEM as the data analysis method for the following reasons: First of all, PLS-SEM is the more appropriate method when the phenomena in question are relatively new and the research is at an early stage of theory development and testing (Hair et al., 2011, Chin and Marcoulides, 1998, Hair et al., 2019). In this study, the research model was built on the celebrity endorsement literature (e.g., Munnukka et al., 2016) and UGC literature (e.g., Kim and Lee, 2017), and it was extended by adding constructs (e.g., endorser authenticity) and relationships that were tested for the first time in the context of consumer selfies. Therefore, the emphasis of this research is more on predicting key constructs rather than on confirmation of structural relationships, which suits PLS-SEM. Secondly, PLS-SEM can handle much larger and more complex models with many constructs, indicators and structural relationships while CB-SEM requires more parsimony (Hair et al., 2011, Hair et al., 2019). Specifically, this thesis has a relatively large model with 14 constructs and 40 items. Thirdly, because the constructs' measurement properties are less restrictive with PLS-SEM than those that CB-SEM requires (Hair et al., 2019, Fornell and Bookstein, 1982), constructs with single item in this study (e.g., brand familiarity) can be used. Fourthly, PLS-SEM deals with formative constructs without specification rules that CB-SEM requires (Hair et al., 2011). In this thesis, the construct 'consumer selfie engagement' has formative indicators, therefore PLS-SEM is better. Last but not the least, PLS-SEM is able to deal with non-normally distributed data while CB-SEM requires the multivariate normality of the data (Hair et al., 2011, Hair et al., 2019). Particularly, a one-sample Kolmogorov-Smirnov Test was run to examine the data distribution, and the results show that the data in the study significantly deviate from normality ( $p < 0.001$ ). In conclusion, PLS-SEM is chosen in this study to test the hypotheses following the guideline of Hair et al. (2016). Besides, IBM SPSS Statistics version 26 and SmartPLS version 4 are employed to analyse the data in this study.

#### **4.6.2. PLS-SEM Approach**

This section introduce the main stages and key measures in assessing PLS-SEM results in this study. The first stage of PLS-SEM is assessing the measurement models. The measurement models represent the relationships between the latent variables and their corresponding indicator variables relationships. There are two different ways of measuring unobservable variables: First, reflective measurement, with the direction of the arrows from the construct to

the indicator variables, which indicates that the construct causes the measurement of the indicator variable. Second, formative measurement, with the arrows from the indicator variables to the construct, which indicates a causal relationship in this direction (Hair, 2017). Researchers must distinguish between reflectively and formatively measured constructs when evaluating measurement models using PLS-SEM (Hair, 2017).

#### *4.6.2.1. The Reflective Measurement Models*

According to Hair et al. (2016), reliability, convergent validity and discriminant validity should be verified for the reflective measurement model: First, internal consistency reliability are measured by both Cronbach's alpha and composite reliability as suggested by Hair et al. (2016). Cronbach's alpha provides an estimate of the reliability based on the intercorrelations of the observed indicators. But it is limited by assuming all indicators are equally reliable (Hair et al., 2016). Composite reliability (CR), however, is a different calculating method that considers the different outer loadings of the indicator variables. Second, convergent validity refers to the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2016). Third, discriminant validity represents the extent to which the construct is empirically distinct from other constructs (Hair et al., 2016). In this study, discriminant validity is demonstrated by three methods: the cross-loadings of the indicators, Fornell and Larcker (1981) criterion, and the heterotrait-monotrait (HTMT) ratio.

#### *4.6.2.2. The Formative Measurement Models*

As suggested by Hair et al. (2016), the formative indicators' multicollinearity/ or collinearity and the significance of the outer weights should be examined for the formative measurement models: First, collinearity represents the correlation between two formative indicators, where high scores could indicate issues (Hair et al., 2016). Variance inflation factor (VIF) should be tested to detect collinearity. Specifically, there are two types of VIF: Inner VIF represents the collinearity among the constructs, which must be tested for the structural model in the latter sections; outer VIF represents the collinearity among the indicators of a construct, which is required to be assessed for a formative measurement model. Second, outer weight represents

the result of a multiple regression, with the latent variable as the dependent variable and the formative indicators as the independent variables (Hair et al., 2016). They express the relative contribution of each indicator to the construct, or the relative importance to forming the construct (Hair et al., 2016).

In addition, this research tests the nomological validity of the formative constructs, i.e., whether the constructs carry the intended meanings (Amaro and Duarte, 2015). According to Becker et al. (2012), formative constructs are viewed as second-order constructs, whereas indicators are viewed as first-order constructs. The evaluation of second-order constructs should, by analogy, follow the same procedures that are used to assess first-order constructs' validity (Chin, 1998). Specifically, nomological validity can be manifested in the significance of the relationships between the second-order formative construct and other constructs in the research model (Henseler et al., 2009).

#### *4.6.2.3. Common Method Bias Assessment*

Apart from the measurement models, common method variance (CMV) needs to be examined in this research. CMV defined as systematic variance resulting from the method used to collect data (e.g., self-report survey), can be a potential problem when measuring people's attitudes and perceptions (Podsakoff et al., 2003). Therefore, several remedies have been taken in this study to control such bias as suggested by Podsakoff et al. (2003): Firstly, confusing and complex language was avoided in the questionnaire, and the items in each question were concise. Secondly, the order of the blocks of dependent measures and independent measures was randomised, and the stimulus was repeated once in between to refresh the respondents' memories. Lastly, respondents' anonymity and confidentiality were guaranteed, in order to reduce respondents' social desirability bias. In addition, in the next chapter, Harman's single factor test and marker variable technique are used to further detect common method bias.

#### 4.6.2.4. *The Structural Model*

The next main stage is assessing the structural model, which describes the relationship between latent variables. The structural assessment procedure includes a few steps: First, Variance inflation factor (VIF) should be tested to detect collinearity among the constructs.

Second, the coefficient of determination ( $R^2$ ), cross-validated redundancy ( $Q^2$ ), and effect size  $f^2$  are suggested to evaluate the structure in PLS-SEM study (Hair et al., 2016): (1) The primary criterion for structural model assessment is the coefficient of determination ( $R^2$ ), which represents the amount of explained variance of each endogenous latent variable (Hair et al., 2012); (2) since PLS-SEM was originally designed for prediction purpose, besides evaluating  $R^2$  values as a criterion of predictive accuracy, cross-validated redundancy ( $Q^2$ ) should be examined as a criterion of predictive relevance (Hair et al., 2016). This measure is an indicator of the model's out-of-sample predictive power, with which the model can accurately predict data not used in the model estimation (Hair et al., 2016); (3) the effect size  $f^2$  for each of the exogenous variables should be calculated. Effect size  $f^2$  stands for the contribution made by an exogenous variable to the  $R^2$  value of an endogenous variable (Hair et al., 2016).

Noticeably, the criterion for goodness-of-fit (i.e., GoF index) is generally used in CB-SEM research to judge how well a hypothesised model structure fits the empirical data. However, due to the fundamentally different design and focus between CB-SEM and PLS-SEM, the usefulness of these criteria of GoF was challenged both conceptually and empirically in PLS-SEM research (Hair et al., 2016). Overall, Hair et al. (2016) argued model fit measures offers little value to PLS-SEM, and advised against the routine of using it in the context of PLS-SEM. Although the majority of researchers did not report model fit in their PLS-SEM research (Hair et al., 2012), some recent studies included certain measures for model fits, such as standardised root mean square residual (SRMR) (e.g., Zafar et al., 2021). This study thus includes model fit statistics offered in SmartPLS 4 for additional information and future interest.

Third, the significance and path coefficients of the structural model should be examined for testing the hypotheses.



### **4.6.3. Mediation Analysis**

Mediation occurs when a third variable intervenes the relationship between two other constructs (Hair et al., 2016). More specifically, an independent variable affects a mediator variable, which in turn affects a dependent variable (Hair et al., 2016). Thereby, a mediator explains the process or mechanism by which one variable affects the other (Hair et al., 2016). In this research, endorser authenticity explains the processes where endorser characteristics influence consumer selfie attitude, therefore it is a mediator.

As a precondition to establishing mediation effects (Baron and Kenny, 1986), the total effects of the independent variable on the dependent variable should be examined. Total effects represent the direct relationship between the independent variable and the dependent variable without the presence of the mediator. Accordingly, in order to establish mediation, endorser characteristics should exert effects on consumer selfie attitudes without endorser authenticity in the model.

To test the specific mediating effects, this study also follows an approach of examining the significance of indirect effects recommended in the PLS research (Nitzl et al., 2016, Zhao et al., 2010). According to their descriptions, researchers should first assess the significance of the indirect effect in order to establish mediation effects. Then, the significance of the direct effect (with the mediator) and indirect effect should be examined to determine the types of mediations: (1) Full mediation occurs when the indirect effect is significant but the direct effect is nonsignificant; (2) complementary partial mediation represents that both the direct and indirect are significant and point in the same direction; (3) competitive partial mediation represents that both the direct effect and indirect effect are significant but point in a different direction; (4) direct-only nonmediation means that the indirect effect is not significant but the direct effect is; (5) no-effect nonmediation occurs when neither the indirect nor direct effects are significant.

## **4.7. Summary**

This chapter provided an overview of the philosophical position (positivism), research approach (quantitative) and method (online survey) adopted in this thesis. It explained the process of developing consumer selfie stimuli and questionnaires, with a pre-test ensuring their validity. Then it introduced the research population and sampling process and issues related to ethical considerations. Subsequently, it offered a detailed description of the data analysis approach (PLS-SEM) that is used in the next chapter, including its rationale, the measurement models, the structural model and mediation analysis. The next chapter presents the result of the data analyses.

## **5. Chapter Five: Data Analyses**

### **5.1. Chapter Preview**

This chapter analyses the detailed results obtained from the survey. First, it introduces the process of collecting and purifying data (section 5.2.) and summarizes the characteristics of respondents of the survey (section 5.3.). Then, the results of the reflective and formative measurement models are presented (section 5.4.). Next, the outcomes of the structural model are discussed (section 5.5.), followed by a mediation analysis (section 5.6). Lastly, section 5.7. concludes this chapter.

### **5.2. Data Collection**

Data were collected between December 16, 2020, and December 21, 2020. Four versions of surveys for each brand were distributed by Qualtrics panel (see Appendix C). During the data collection, 197 respondents were screened out due to quality concerns including speeding check,<sup>1</sup> duplicate<sup>2</sup> or failing the attention check. Subsequently, 401 respondents successfully completed questionnaires by passing the attention check questions embedded. However, 2 unengaged respondents were further removed because of giving the same responses for every single item. After the elimination, it results in 399 of the final responses for the following four brands: Costa Coffee (n=99), Starbucks (n=101), Puma (n=99), and 100 Reebok (n=100).

---

<sup>1</sup> Qualtrics first soft launched the survey for an initial 10% of the final sample. A median time to completion (between 3 and 3.5 minutes) was recorded. For the rest of the responses, Qualtrics then added a speeding check - measured as half the median soft launch time - which automatically terminated those who are not responding thoughtfully.

<sup>2</sup> The respondents who took the survey more than once.

In addition, based on a median completion time of 3min and 21sec for the survey, the respondents were divided into quick respondents and slow respondents. An independent-samples *t*-test was conducted to compare the composite mean scores of each construct between these two groups. The results in Table 9 show no significant differences between quick respondents and slow respondents on all major constructs in the model. Accordingly, it is assumed that all respondents have given sensible answers during the survey. Thus all 399 responses were retained.

**Table 9. Sample means and t-test results.**

	<i>t</i> -test results				<i>P</i> -Values
	Mean Full-responses (N=399)	Mean Quick-responses (N=199)	Mean Slow-responses (N=200)		
ATT	4.774	4.677	4.870	0.347	
SIM	3.555	3.715	3.395	0.791	
FIT	5.008	4.931	5.085	0.347	
HAP	4.831	4.820	4.841	0.654	
MON	4.559	4.591	4.527	0.659	
CON	4.392	4.405	4.378	0.143	
AUT	4.735	4.618	4.852	0.158	
CSA	4.736	4.630	4.840	0.484	
BA	4.986	4.987	4.985	0.137	
PI	4.564	4.663	4.465	0.897	
BSE	3.169	3.228	3.110	0.157	

### 5.3. Participants' Characteristics

As shown in Table 10, the survey sample consisted of 399 participants with 25.3% male and 74.7% female, which is not surprising as Instagram is a female-led platform (Statista, 2021b). The respondents are aged 18-24 (39.6 % of the sample), and 25-34 (32.8% of the sample), 35-44 (27.6% of the sample), which is generally similar to the main age composition of Instagram users in the UK (Statista, 2021a). They have various educational backgrounds (i.e., 17.3% secondary education, 41.1% A-level, 31.6% undergraduate and 10.0% postgraduate). The majority of the respondents are employed/self-employed (69.2 % of the sample), followed by 20.6 % students, 9.3% out of work and 1% retired groups. Most of the respondents use Instagram frequently (i.e., 20.8 % hourly, 55.1 % several times each day and 14.0 % once daily), only about 10% of respondents reported below daily Instagram usage (i.e., 7.8% several times each week and 2.3% once a week). In general, this sample represents the population of Instagram users in the UK.

**Table 10. Demographic profile of respondents.**

Demographic profile		Frequency	Percentage
Gender	Male	101	25.3
	Female	298	74.7
Age	18-24	158	39.6
	25-34	131	32.8
	35-44	110	27.6
Highest educational level	Secondary education (GCSE/ 10 <sup>th</sup> Grade USA) or lower	69	17.3
	A-level/ High school Diploma or vocational qualification	164	41.1
	Undergraduate degree	126	31.6
	Postgraduate degree	40	10.0

Demographic profile		Frequency	Percentage
Employment status	Employed/ Self-employed	276	69.2
	Student	82	20.6
	Out of work	37	9.3
	Retired	4	1.0
Instagram usage	Hourly	83	20.8
	Several times each day	220	55.1
	Once daily	56	14.0
	Several times each week	31	7.8
	Once a week	9	2.3

## 5.4. The Measurement Models

The first stage of PLS-SEM is assessing the reflective measurement models (section 5.4.1.) and the formative measurement models (section 5.4.2.).

### 5.4.1. The Reflective Measurement Models

According to Hair et al. (2016), reliability, convergent validity and discriminant validity should be verified for the reflective measurement model.

#### 5.4.1.1. Reliability

Reliability can be established when the scores of Cronbach's alpha and CR are higher than 0.70 (Taber, 2018, Hair et al., 2012). As shown in Table 11, reliability is fulfilled by all constructs.

**Table 11. Reliability and convergent validity.**

Constructs	Mean	Std. Deviation	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Endorser attractiveness (ATT)	4.787	1.478	0.918	0.943	0.805
Endorser-brand fit (FIT)	5.009	1.470	0.938	0.955	0.843
Endorser-viewer similarity (SIM)	3.553	1.500	0.893	0.934	0.824
Endorser happiness (HAP)	4.832	1.338	0.925	0.947	0.816
Endorser monetary-gain motive (MON)	4.522	1.380	0.870	0.914	0.782
Endorser conspicuous brand usage (CON)	4.389	1.210	0.822	0.890	0.731
Endorser authenticity (AUT)	4.728	1.210	0.872	0.921	0.796
Consumer selfie attitude (CSA)	4.733	1.471	0.893	0.926	0.758
Brand attitude (BA)	4.995	1.279	0.908	0.942	0.844
Purchase intention (PI)	4.564	1.563	0.930	0.955	0.877
Brand familiarity (FAM)	5.962	1.239			
Image quality (IQ)	5.108	1.587			
Number of likes (NL)	254.416	658.630			

#### 5.4.1.2. Validity

Convergent validity can be confirmed when each construct's average variance extracted (AVE) is 0.50 or higher and when each item has outer loadings above 0.70 (Hair et al., 2012). As shown in Table 11 and Table 12, convergent validity of this study is fulfilled.

Discriminant validity is examined firstly by the cross-loadings of the indicators, which requires that the loadings of each indicator on its construct are higher than the cross-loadings on other

constructs (Hair et al., 2014). Table 12 indicates that discriminant validity is satisfied. Secondly, according to Fornell and Larcker (1981), the AVE of each construct should be higher than the highest squared correlation with any other construct. The results presented in Table 13 show that this criterion is satisfied. Lastly, the heterotrait-monotrait (HTMT) ratio of correlations must be lower than 0.9 (Hair et al., 2016). Table 14 shows that this requirement is satisfied as well. In summary, the discriminant validity of this study is fulfilled.



**Table 12. Indicator loadings and cross-loadings.**

	ATT	FIT	SIM	HAP	MON	CON	AUT	CSA	BA	PI	FAM	IQ	NL
ATT_1	<b>0.917</b>	0.471	0.357	0.367	0.008	-0.010	0.340	0.577	0.177	0.204	0.176	0.440	0.098
ATT_2	<b>0.908</b>	0.462	0.308	0.358	-0.005	-0.016	0.273	0.563	0.143	0.149	0.147	0.400	0.083
ATT_3	<b>0.829</b>	0.455	0.441	0.303	0.000	0.072	0.273	0.529	0.149	0.148	0.124	0.344	0.139
ATT_4	<b>0.932</b>	0.539	0.342	0.388	-0.032	-0.024	0.298	0.593	0.147	0.163	0.185	0.450	0.060
FIT_1	0.480	<b>0.911</b>	0.404	0.497	-0.059	0.089	0.386	0.559	0.242	0.191	0.261	0.441	0.003
FIT_2	0.504	<b>0.940</b>	0.388	0.501	-0.054	0.060	0.383	0.602	0.230	0.158	0.265	0.486	-0.001
FIT_3	0.454	<b>0.882</b>	0.377	0.449	-0.064	0.045	0.368	0.583	0.271	0.205	0.236	0.434	0.029
FIT_4	0.533	<b>0.939</b>	0.418	0.514	-0.053	0.042	0.431	0.670	0.268	0.200	0.271	0.508	-0.011
SIM_1	0.370	0.363	<b>0.916</b>	0.411	0.024	0.073	0.441	0.498	0.338	0.380	0.178	0.349	-0.076
SIM_2	0.386	0.397	<b>0.933</b>	0.403	-0.017	0.100	0.455	0.497	0.313	0.348	0.152	0.357	-0.085
SIM_3	0.335	0.420	<b>0.874</b>	0.405	-0.031	0.105	0.397	0.485	0.315	0.344	0.171	0.321	-0.079
HAP_1	0.351	0.467	0.348	<b>0.893</b>	-0.082	0.021	0.409	0.478	0.221	0.253	0.233	0.472	-0.075

	ATT	FIT	SIM	HAP	MON	CON	AUT	CSA	BA	PI	FAM	IQ	NL
HAP_2	0.342	0.502	0.430	<b>0.924</b>	-0.085	0.047	0.460	0.501	0.229	0.215	0.215	0.469	-0.069
HAP_3	0.379	0.490	0.461	<b>0.903</b>	-0.087	0.096	0.458	0.488	0.240	0.270	0.220	0.498	-0.074
HAP_4	0.357	0.472	0.375	<b>0.893</b>	-0.119	0.084	0.468	0.479	0.255	0.288	0.226	0.459	-0.099
MON_1	0.081	0.070	0.085	0.013	<b>0.806</b>	0.212	-0.111	0.042	0.022	-0.025	-0.013	0.201	0.072
MON_2	-0.055	-0.094	-0.020	-0.129	<b>0.948</b>	0.288	-0.238	-0.105	-0.079	-0.083	-0.078	0.014	0.089
MON_3	0.018	-0.068	-0.038	-0.097	<b>0.892</b>	0.279	-0.157	-0.056	0.000	-0.024	-0.040	0.048	0.033
CON_1	0.041	0.135	0.146	0.100	0.284	<b>0.789</b>	-0.061	0.091	0.175	0.159	0.080	0.134	0.020
CON_2	0.000	0.045	0.097	0.066	0.251	<b>0.902</b>	-0.121	-0.009	0.069	0.110	0.026	0.023	-0.008
CON_3	-0.013	0.019	0.045	0.030	0.255	<b>0.869</b>	-0.109	-0.038	0.132	0.109	0.031	0.072	-0.137
AUT_1	0.302	0.365	0.425	0.477	-0.192	-0.121	<b>0.889</b>	0.451	0.364	0.320	0.233	0.349	-0.028
AUT_2	0.230	0.337	0.357	0.392	-0.161	-0.110	<b>0.885</b>	0.405	0.290	0.209	0.219	0.341	-0.013
AUT_3	0.340	0.434	0.478	0.455	-0.203	-0.090	<b>0.902</b>	0.522	0.310	0.290	0.229	0.352	-0.046
CSA_1	0.569	0.584	0.436	0.492	0.014	0.071	0.429	<b>0.868</b>	0.263	0.236	0.218	0.594	0.036
CSA_2	0.481	0.518	0.348	0.389	-0.143	-0.103	0.459	<b>0.805</b>	0.274	0.226	0.222	0.423	-0.021
CSA_3	0.547	0.576	0.568	0.482	-0.056	0.045	0.448	<b>0.877</b>	0.345	0.326	0.156	0.528	0.000

	ATT	FIT	SIM	HAP	MON	CON	AUT	CSA	BA	PI	FAM	IQ	NL
CSA_4	0.594	0.615	0.516	0.504	-0.067	-0.020	0.477	<b>0.928</b>	0.305	0.291	0.203	0.600	0.016
BA_1	0.152	0.237	0.276	0.246	-0.022	0.112	0.308	0.302	<b>0.915</b>	0.707	0.448	0.243	-0.048
BA_2	0.162	0.293	0.331	0.248	-0.065	0.106	0.392	0.337	<b>0.941</b>	0.680	0.441	0.253	-0.050
BA_3	0.161	0.225	0.377	0.226	-0.018	0.154	0.290	0.303	<b>0.901</b>	0.736	0.372	0.232	-0.020
PI_1	0.169	0.216	0.347	0.277	-0.037	0.132	0.277	0.288	0.731	<b>0.934</b>	0.422	0.216	-0.041
PI_2	0.196	0.191	0.385	0.275	-0.065	0.115	0.303	0.299	0.726	<b>0.950</b>	0.456	0.243	-0.065
PI_3	0.153	0.169	0.374	0.243	-0.064	0.145	0.290	0.291	0.701	<b>0.925</b>	0.379	0.228	-0.062
FAM_1	0.177	0.282	0.184	0.247	-0.060	0.045	0.255	0.227	0.460	0.449	<b>1.000</b>	0.237	-0.011
IQ_1	0.457	0.511	0.378	0.525	0.064	0.075	0.390	0.620	0.265	0.245	0.237	<b>1.000</b>	0.049
NL_1	0.105	0.004	-0.088	-0.088	0.075	-0.058	-0.034	0.010	-0.044	-0.060	-0.011	0.049	<b>1.000</b>

Note: ATT = attractiveness, FIT = endorser-brand fit, SIM = endorser-viewer similarity, HAP = happiness, MON = monetary-gain motive, CON = conspicuous brand usage, AUT = authenticity, CSA = consumer selfie attitude, BA= brand attitude, PI= purchase intention, FAM= brand familiarity, IQ= image quality, NL= number of likes.

**Table 13. Fornell and Larcker (1981) criterion.**

	ATT	FIT	SIM	HAP	MON	CON	AUT	CSA	BA	PI	FAM	IQ	NL
ATT	<b><i>0.897</i></b>												
FIT	0.538	<b><i>0.918</i></b>											
SIM	0.401	0.433	<b><i>0.908</i></b>										
HAP	0.396	0.535	0.448	<b><i>0.903</i></b>									
MON	-0.008	-0.062	-0.008	-0.103	<b><i>0.884</i></b>								
CON	0.004	0.063	0.102	0.069	0.300	<b><i>0.855</i></b>							
AUT	0.330	0.428	0.475	0.497	-0.209	-0.119	<b><i>0.892</i></b>						
CSA	0.631	0.660	0.543	0.539	-0.070	0.002	0.519	<b><i>0.871</i></b>					
BA	0.172	0.275	0.355	0.261	-0.039	0.134	0.361	0.342	<b><i>0.919</i></b>				
PI	0.186	0.205	0.394	0.284	-0.059	0.139	0.310	0.313	0.768	<b><i>0.937</i></b>			
FAM	0.177	0.282	0.184	0.247	-0.060	0.045	0.255	0.227	0.460	0.449	<b><i>1.000</i></b>		
IQ	0.457	0.511	0.377	0.525	0.064	0.075	0.390	0.620	0.265	0.245	0.237	<b><i>1.000</i></b>	
NL	0.105	0.004	-0.088	-0.088	0.075	-0.058	-0.034	0.010	-0.044	-0.060	-0.011	0.049	<b><i>1.000</i></b>

Note: The square root of average variance extracted for each construct is denoted in bold and italic, while the inner-construct correlations are shown off-diagonally.

**Table 14. The heterotrait-monotrait (HTMT) ratio of correlations.**

	ATT	FIT	SIM	HAP	MON	CON	AUT	CSA	BA	PI	FAM	IQ	NL
ATT													
FIT	0.578												
SIM	0.445	0.473											
HAP	0.429	0.573	0.492										
MON	0.067	0.096	0.064	0.103									
CON	0.051	0.089	0.131	0.090	0.355								
AUT	0.364	0.468	0.533	0.550	0.215	0.134							
CSA	0.695	0.717	0.601	0.590	0.107	0.102	0.585						
BA	0.189	0.297	0.397	0.285	0.050	0.171	0.402	0.378					
PI	0.199	0.219	0.432	0.305	0.057	0.168	0.340	0.340	0.838				
FAM	0.184	0.290	0.195	0.257	0.052	0.058	0.273	0.243	0.480	0.463			
IQ	0.476	0.526	0.399	0.546	0.106	0.098	0.417	0.652	0.277	0.254	0.237		
NL	0.111	0.012	0.093	0.091	0.078	0.071	0.035	0.023	0.045	0.062	0.011	0.049	

Note: ATT = attractiveness, FIT = endorser-brand fit, SIM = endorser-viewer similarity, HAP = happiness, MON = monetary-gain motive, CON = conspicuous brand usage, AUT = authenticity, CSA = consumer selfie attitude, BA= brand attitude, PI= purchase intention, FAM= brand familiarity, IQ= image quality, NL= number of likes.

## 5.4.2. The Formative Measurement Models

As suggested, formative indicators' multicollinearity/ or collinearity, the significance of the outer weights, and nomological validity are examined for the formative measurement models (Amaro and Duarte, 2015, Hair et al., 2016).

### 5.4.2.1. Multicollinearity and Outer Weights

First, outer variance inflation factor (VIF) is tested to detect collinearity among the indicators of the formative construct. Table 15 shows that the VIF for all formative indicators of CSE are below the common cut-off threshold 5 (Hair et al., 2016). Therefore, multicollinearity is not present in this study.

Then, the outer weights of the formative indicators are examined in relation to the CSE construct. From Table 15, items CSE1 ( $p < 0.001$ ) and CSE3 ( $p < 0.05$ ) have positive and significant weights, suggesting that 'liking' and 'sharing' the post contribute to the construct. However, CSE2 'commenting' indicator does not significantly contribute to consumer selfie engagement ( $p > 0.05$ ). According to Hair et al. (2016), nonsignificant formative indicators should not be eliminated automatically. Instead, researchers should consider its absolute contribution to the construct (i.e., the information an indicator provides without considering other indicators), which is shown by the indicator's outer loading. From Table 15, CSE2 has a high loading of 0.740 (above 0.5), which can be interpreted as absolutely important but not as relatively important. As suggested by Hair et al. (2016), CSE2 is thus retained in this situation.

**Table 15. Evaluation of formative measurement model on consumer selfie engagement construct: Indicator weights on consumer selfie engagement and VIF.**

Construct	Indicators	Weights	P-Values	Loadings	VIF
Consumer selfie engagement (CSE)	CSE1 – I would ‘like’ this post	0.807	0.000	0.972	1.547
	CSE2 – I would comment on this post	0.078	0.461	0.740	4.055
	CSE3 – I would share this post	0.218	0.027	0.725	3.765

#### 5.4.2.2. Nomological Validity

Finally, nomological validity can be manifested in the significance of the relationships between the formative construct and other constructs in the research model (Henseler et al., 2009). Table 16. shows a strong and significant relationship between CSE and CSA in the model, consistent with the underlying theory, which confirms CSE construct’s nomological validity (Henseler et al., 2009).

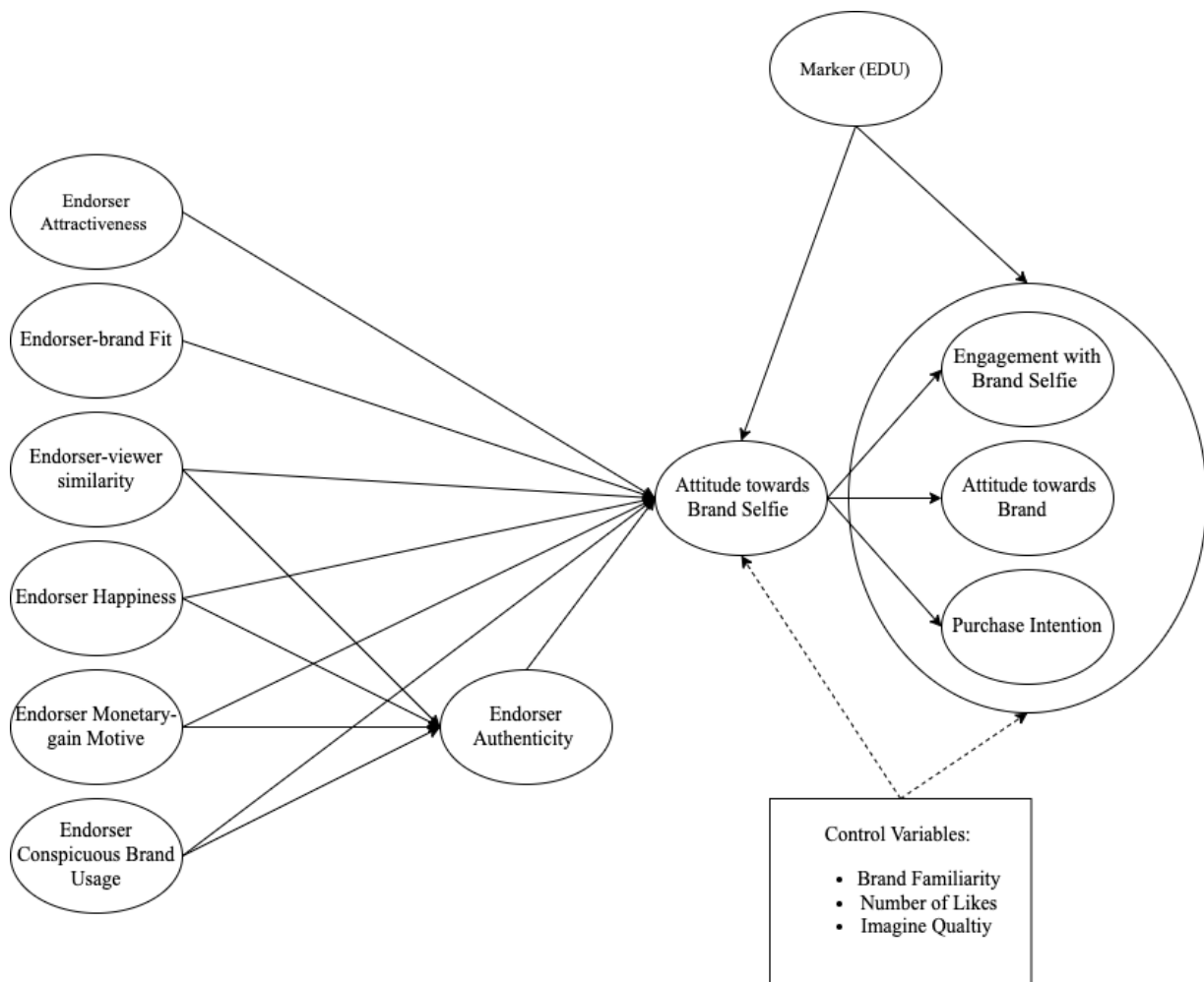
**Table 16. Structural estimates between CSE and the other construct in the model.**

Path	Coefficient	P-Values
CSA→CSE	0.548	0.000

#### 5.4.3. Common Method Bias Assessment

To ensure that common method bias is not a serious concern in this study, two separate tests were conducted. First, Harman’s single-factor test reported that the common variance explained by the single factor is 33.562%, which is less than the threshold of 50%, hence common method variance (CMV) does not pose a threat in this study (Hew et al., 2018).

Second, following the choice of Rindfleisch et al. (2009), this research used education (1 = secondary education, 4= postgraduate degree) as a marker variable to detect CMV since it is expected to be theoretically unrelated to the study variables (Lindell and Whitney, 2001). The method by Lindell and Whitney (2001) entails partialling out the marker variable in a PLS model to assess the common method bias by determining the correlation among the marker variable and latent variables (Tehseen et al., 2017). Specifically, after partialling out education by adding to endogenous latent variables (see Figure 6), the correlation among all latent variables and education (EDU) were far less than 0.3 (see Table 17), which again suggests that the risk of CMV bias is minimal in this study (Tehseen et al., 2017).



**Figure 6. Partialling out of marker variable.**



**Table 17. Correlation among all latent variables and marker variable.**

	ATT	FIT	SIM	HAP	MON	CON	AUT	CSA	CSE	BA	PI	FAM	IQ	NL	Marker (EDU)
ATT	1.000														
FIT	0.538	1.000													
SIM	0.401	0.433	1.000												
HAP	0.396	0.535	0.448	1.000											
MON	-0.008	-0.062	-0.008	-0.103	1.000										
CON	0.004	0.063	0.102	0.069	0.300	1.000									
AUT	0.330	0.428	0.475	0.497	-0.209	-0.119	1.000								
CSA	0.631	0.660	0.543	0.539	-0.070	0.002	0.519	1.000							
CSE	0.384	0.440	0.598	0.420	-0.003	0.073	0.494	0.638	1.000						
BA	0.172	0.275	0.355	0.261	-0.039	0.134	0.361	0.342	0.375	1.000					
PI	0.186	0.205	0.394	0.284	-0.059	0.139	0.310	0.313	0.342	0.768	1.000				

	ATT	FIT	SIM	HAP	MON	CON	AUT	CSA	CSE	BA	PI	FAM	IQ	NL	Marker (EDU)
FAM	0.177	0.282	0.184	0.247	-0.060	0.045	0.255	0.227	0.186	0.459	0.449	1.000			
IQ	0.457	0.511	0.377	0.525	0.064	0.075	0.390	0.620	0.479	0.265	0.245	0.237	1.000		
NL	0.105	0.004	-0.088	-0.088	0.075	-0.058	-0.034	0.010	-0.035	-0.044	-0.060	-0.011	0.049	1.000	
Marker	<b>0.018</b>	<b>0.009</b>	<b>0.107</b>	<b>0.012</b>	<b>-0.042</b>	<b>0.128</b>	<b>0.003</b>	<b>-0.005</b>	<b>-0.025</b>	<b>0.067</b>	<b>0.092</b>	<b>0.060</b>	<b>-0.030</b>	<b>0.010</b>	1.000

Note: ATT = attractiveness, FIT = endorser-brand fit, SIM = endorser-viewer similarity, HAP = happiness, MON = monetary-gain motive, CON = conspicuous brand usage, AUT = authenticity, CSA = consumer selfie attitude, BA= brand attitude, PI= purchase intention, FAM= brand familiarity, IQ= image quality, NL= number of likes, EDU= education.

## 5.5. The Structural Model

The second step of PLS-SEM is to assess the structural model, which includes collinearity assessment (section 5.5.1.), structural model evaluation (section 5.5.2.), and structural model path coefficients (section 5.5.3.).

### 5.5.1. Collinearity Assessment

Inner VIF is tested to detect collinearity among the constructs. The results show that VIF among all latent constructs are under 2 (Table 18), which is significantly below the threshold of 5 (Hair et al., 2016). Therefore, there is no indication of collinearity in this study.

**Table 18. Collinearity assessment.**

Constructs	AUT	CSA	CSE	BA	PI
ATT		1.591			
FIT		1.880			
SIM	1.259	1.557			
HAP	1.272	1.841			
MON	1.118	1.184			
CON	1.117	1.163			
AUT		1.679			
CSA			1.642	1.642	1.642
FAM		1.127	1.072	1.072	1.072
IQ		1.693	1.654	1.654	1.654
NL		1.057	1.004	1.004	1.004

Note: ATT = attractiveness, FIT = endorser-brand fit, SIM = endorser-viewer similarity, HAP = happiness, MON = monetary-gain motive, CON = conspicuous brand usage, AUT = authenticity,

---

CSA = consumer selfie attitude, BA= brand attitude, PI= purchase intention, FAM= brand familiarity, IQ= image quality, NL= number of likes

### 5.5.2. Structural Model Evaluation

Next, the coefficient of determination ( $R^2$ ), cross-validated redundancy ( $Q^2$ ), and effect size  $f^2$  are suggested to evaluate the structure in PLS-SEM study (Hair et al., 2016).

First, the coefficient of determination ( $R^2$ ) is tested to assess the structural model. The rule of thumb regarding an acceptable  $R^2$ , with 0.75, 0.50, and 0.25, respectively, describing substantial, moderate, or weak levels of predictive accuracy (Hair et al., 2014). In this study, the proposed variables together explained 65.9 % of the variance of consumer selfie attitude ( $R^2 = 0.659$ ) and 37.4% of perceived endorser authenticity ( $R^2 = 0.374$ ), which indicates a moderate and a weak effect respectively. Moreover, consumer selfie attitude contributes to a 42.2% variance of consumer selfie engagement ( $R^2 = 0.422$ ), 27.3% of brand attitude ( $R^2 = 0.273$ ), and 25.2% of purchase intention ( $R^2 = 0.252$ ), which can be considered rather weak.

Next,  $Q^2$  is obtained through PLSpredict algorithm in SmartPLS 4. When  $Q^2$  is greater than 0, one can conclude that the exogenous constructs have predictive relevance for the endogenous construct (Hair et al., 2016). Further, values of 0.02, 0.15, and 0.35 respectively indicate that an exogenous construct has a small, medium, or large predictive relevance for a certain endogenous construct (Hair et al., 2016). Accordingly, the structural model has large predictive relevance for consumer selfie attitude ( $Q^2 = 0.627$ ) and perceived endorser authenticity ( $Q^2 = 0.354$ ). Besides, the structural model has medium predictive relevance for consumer selfie engagement ( $Q^2 = 0.348$ ), brand attitude ( $Q^2 = 0.236$ ) and purchase intention ( $Q^2 = 0.227$ ).

Furthermore, the effect size  $f^2$  for each of the exogenous variables is shown in Table 19. The threshold of 0.02, 0.15 and 0.35 represent small, medium and large effects respectively (Hair et al., 2016). From Table 19, attractiveness ( $f^2 = 0.128$ ), brand fit ( $f^2 = 0.099$ ), similarity ( $f^2 = 0.050$ ), happiness ( $f^2 = 0.002$ ), monetary-gain motive ( $f^2 = 0.002$ ) and conspicuous brand usage

( $f^2 = 0.002$ ) and authenticity ( $f^2 = 0.028$ ) have small effects on consumer selfie attitude. As for control variables, image quality ( $f^2 = 0.108$ ) has a small effect but brand familiarity and number of likes have no effects on consumer selfie attitude ( $f^2 < 0.02$ ). Besides, the hypothesized predictors all have small effects on endorser authenticity ( $f^2_{SIM} = 0.142$ ,  $f^2_{HAP} = 0.148$ ,  $f^2_{MON} = 0.024$ ), apart from conspicuous brand usage which has no effect ( $f^2 < 0.02$ ).

In terms of the effects on the three outcome variables, consumer selfie attitude has a medium effect on consumer selfie engagement ( $f^2 = 0.317$ ), while small effects on brand attitude ( $f^2 = 0.047$ ) and purchase intention ( $f^2 = 0.035$ ). As for the control variables, brand familiarity has medium effects on both brand attitude ( $f^2 = 0.205$ ) and purchase intention ( $f^2 = 0.194$ ) but no effects on consumer selfie engagement ( $f^2 < 0.02$ ). However, the other control variables (i.e., image quality and number of likes) have no effects on any of the outcome variables ( $f^2 < 0.02$ ).

In addition, the value of SRMR is 0.047, which is below the cut-off value of 0.08 thus suggesting that the hypothesised model structure fits the empirical data well (Henseler et al., 2014). Overall, the results in this section verify that the hypothesized model has good predictive accuracy and predictive relevance for consumer selfie attitude and other endogenous variables.

**Table 19. Predictive relevance and effect size.**

	R <sup>2</sup>	Q <sup>2</sup>	Exogenous variables	Effect size f <sup>2</sup>
CSA	0.659	0.627	ATT	0.128
			FIT	0.099
			SIM	0.050
			HAP	0.002
			MON	0.002
			CON	0.002
			AUT	0.028

	R <sup>2</sup>	Q <sup>2</sup>	Exogenous variables	Effect size f <sup>2</sup>
			FAM	0.001
			IQ	0.108
			NL	0.000
AUT	0.374	0.354	SIM	0.142
			HAP	0.148
			MON	0.024
			CON	0.027
CSE	0.422	0.348	FAM	0.001
			IQ	0.019
			NL	0.004
			CSA	0.317
BA	0.273	0.236	FAM	0.205
			IQ	0.001
			NL	0.002
			CSA	0.047
PI	0.252	0.227	FAM	0.194
			IQ	0.001
			NL	0.005
			CSA	0.035

Note: ATT = attractiveness, FIT = endorser-brand fit, SIM = endorser-viewer similarity, HAP = happiness, MON = monetary-gain motive, CON = conspicuous brand usage, AUT = authenticity, CSA = consumer selfie attitude, BA= brand attitude, PI= purchase intention, FAM= brand familiarity, IQ= image quality, NL= number of likes

### 5.5.3. Structural Model Path Coefficients

The hypotheses are tested using structural equation model (SEM) through a bootstrapping procedure with 5000 sub-samples. The outcome of the examination is listed in Table 20 and displayed in Figure 7 for better illustration.

First, the effects of all endorser characteristics on consumer selfie attitude are tested. As a result, endorser attractiveness ( $\beta = 0.264, p < 0.001$ ), endorser-brand fit ( $\beta = 0.252, p < 0.001$ ), endorser-viewer similarity ( $\beta = 0.163, p < 0.001$ ) show significant and positive relationships with consumer selfie attitude. However, endorser happiness ( $\beta = 0.035, p > 0.05$ ), endorser monetary-gain motive ( $\beta = -0.028, p > 0.05$ ) and endorser conspicuous brand usage ( $\beta = -0.029, p > 0.05$ ) show nonsignificant relationships with consumer selfie attitude. Hence, H1-H3a are supported while H4a - H6a are not supported.

Next, the relationships between four endorser characteristics and endorser authenticity are examined. As predictions, endorser-viewer similarity ( $\beta = 0.335, p < 0.001$ ), endorser happiness ( $\beta = 0.344, p < 0.001$ ), endorser monetary-gain motive ( $\beta = -0.129, p < 0.005$ ) and endorser conspicuous brand usage ( $\beta = -0.138, p < 0.05$ ) are all significantly related to endorser authenticity. Accordingly, H3b-H6b are all supported. In addition, the result confirms that endorser authenticity is positively related to consumer selfie attitude ( $\beta = 0.127, p < 0.05$ ), which supports H7.

Last, the relationships between consumer selfie attitude and the outcome variables are examined. As expected, consumer selfie attitude is positively and significantly related to consumer selfie engagement ( $\beta = 0.548, p < 0.001$ ), brand attitude ( $\beta = 0.236, p < 0.001$ ), and purchase intention ( $\beta = 0.208, p < 0.005$ ). Hence, the results support H9, H10, and H11.

Regarding the control variables, brand familiarity has a nonsignificant relationship with consumer selfie attitude ( $\beta = -0.022, p > 0.05$ ) and consumer selfie engagement ( $\beta = 0.029, p > 0.05$ ), whereas it is significantly related to brand attitude ( $\beta = 0.399, p < 0.001$ ) and purchase

intention ( $\beta = 0.395$ ,  $p < 0.001$ ). By contrary, image quality has significant relationships with consumer selfie attitude ( $\beta = 0.250$ ,  $p < 0.001$ ) and consumer selfie engagement ( $\beta = 0.135$ ,  $p < 0.05$ ) but nonsignificant relationships with brand attitude ( $\beta = 0.026$ ,  $p > 0.05$ ) and purchase intention ( $\beta = 0.025$ ,  $p > 0.05$ ). Finally, the number of likes in the selfies does not have significant relationships with any of the dependent variables ( $\beta_{CSA} = -0.009$ ,  $p > 0.05$ ;  $\beta_{CSE} = -0.047$ ,  $p > 0.05$ ;  $\beta_{BA} = -0.043$ ,  $p > 0.05$ ;  $\beta_{PI} = -0.059$ ,  $p > 0.05$ ), which indicates that there is no confounding effect from the number of likes.

**Table 20. Outcome of structural model examination.**

Hypotheses	Paths	Path coefficient	T statistics	P-Values	Remark
H1	ATT → CSA (+)	0.264 <sup>***</sup>	5.407	0.000	<b>Supported</b>
H2	FIT → CSA (+)	0.252 <sup>***</sup>	5.264	0.000	<b>Supported</b>
H3a	SIM → CSA (+)	0.163 <sup>***</sup>	4.081	0.000	<b>Supported</b>
H4a	HAP → CSA (+)	0.035 <sup>NS</sup>	0.887	0.375	Not supported
H5a	MON → CSA (-)	-0.028 <sup>NS</sup>	0.820	0.412	Not supported
H6a	CON → CSA (-)	-0.029 <sup>NS</sup>	0.664	0.506	Not supported
H3b	SIM → AUT (+)	0.335 <sup>***</sup>	7.993	0.000	<b>Supported</b>
H4b	HAP → AUT (+)	0.344 <sup>***</sup>	7.047	0.000	<b>Supported</b>
H5b	MON → AUT (-)	-0.129 <sup>**</sup>	2.869	0.004	<b>Supported</b>
H6b	CON → AUT (-)	-0.138 <sup>*</sup>	2.468	0.014	<b>Supported</b>
H7	AUT → CSA (+)	0.127 <sup>*</sup>	2.752	0.006	<b>Supported</b>
H9	CSA → CSE (+)	0.548 <sup>***</sup>	11.201	0.000	<b>Supported</b>
H10	CSA → BA (+)	0.236 <sup>***</sup>	3.615	0.000	<b>Supported</b>
H11	CSA → PI (+)	0.208 <sup>**</sup>	3.161	0.002	<b>Supported</b>

**Control variable**



Hypotheses	Paths	Path coefficient	T statistics	P-Values	Remark
	FAM → CSA	-0.022 <sup>NS</sup>	0.623	0.533	
	FAM → CSE	0.029 <sup>NS</sup>	0.658	0.511	
	FAM → BA	0.399 <sup>***</sup>	8.067	0.000	
	FAM → PI	0.395 <sup>***</sup>	8.385	0.000	
	IQ → CSA	0.250 <sup>***</sup>	5.588	0.000	
	IQ → CSE	0.135 <sup>*</sup>	2.639	0.008	
	IQ → BA	0.026 <sup>NS</sup>	0.407	0.684	
	IQ → PI	0.025 <sup>NS</sup>	0.382	0.703	
	NL → CSA	-0.009 <sup>NS</sup>	0.340	0.734	
	NL → CSE	-0.047 <sup>NS</sup>	1.566	0.117	
	NL → BA	-0.043 <sup>NS</sup>	0.817	0.414	
	NL → PI	-0.059 <sup>NS</sup>	1.198	0.231	

Note: \*\*\* indicates  $p < 0.001$ , \*\* indicates  $p < 0.005$ , \* indicates  $p < 0.05$ , NS indicates nonsignificant

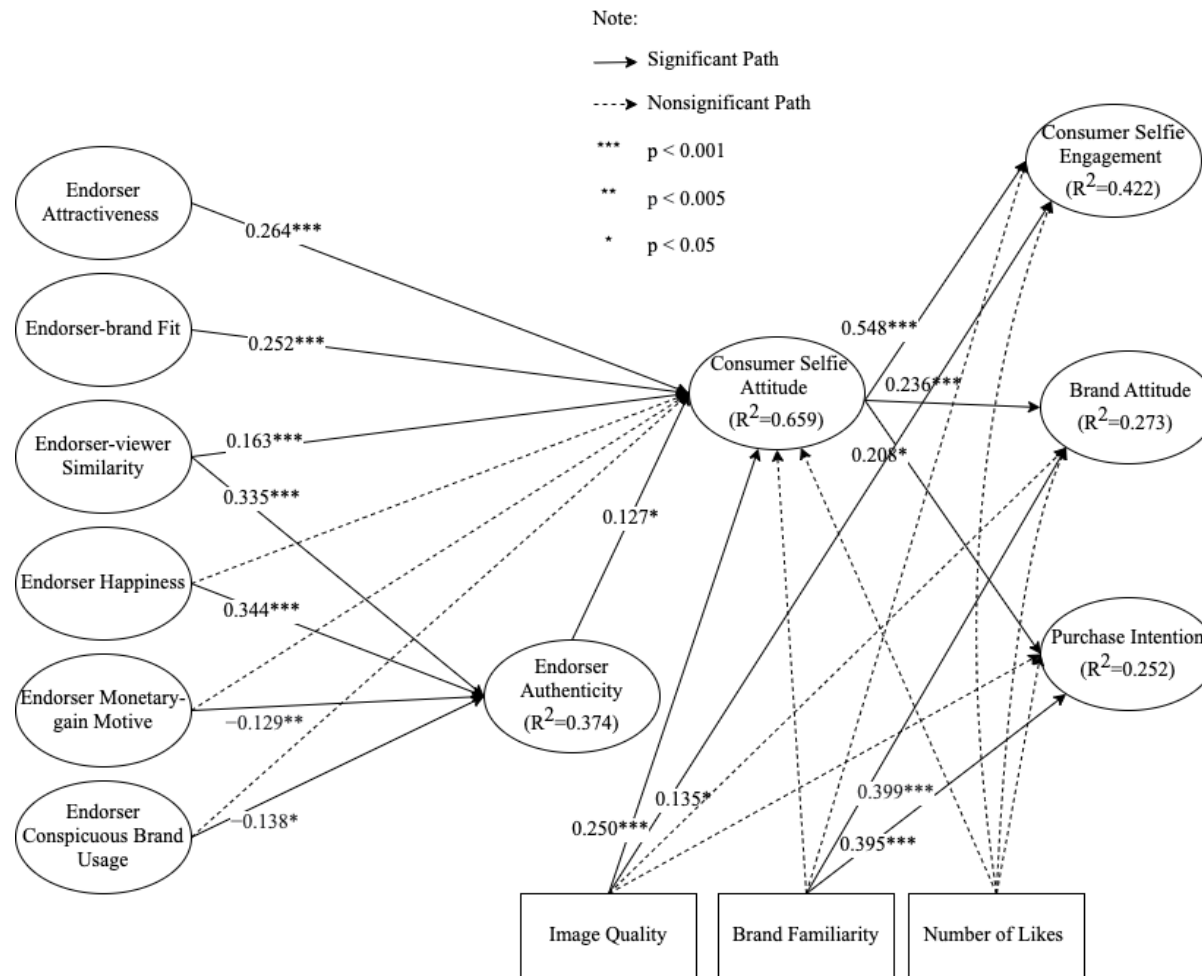


Figure 7. Outcome of the main effects

## 5.6. Mediation Analyses

The bootstrapping method is used in mediation analysis because it is one of the most rigorous and powerful methods for testing mediation effects, and is perfectly suited for PLS-SEM method (Hair et al., 2016). And the indirect 95% bootstrapped confidence interval (CI) bias is adopted to confirm the significance of mediation, where the absence of a zero value between the lower and the upper level bootstrapped confidence interval is required (Hair et al., 2016).

The detailed mediation effects of each hypothesis are listed in Table 21 and explained as follows. First, as a precondition to establishing mediation effects (Baron and Kenny, 1986), the total effects of the independent variable on the dependent variable are examined. From Table 21, there are nonsignificant total effects of monetary-gain motive and conspicuous brand usage on consumer selfie attitude. Therefore, no mediation effects are further analysed for their influences, which means H8c and H8d are not supported. On the contrary, when excluding the mediator, endorser-viewer similarity and endorser happiness have significant relationships with consumer selfie attitude. Hence subsequent mediation effects can be analysed.

Then, the significance of the indirect effects are examined to establish mediating effects (Nitzl et al., 2016, Zhao et al., 2010). As shown in Table 21, endorser authenticity mediates the effects of endorser-viewer similarity (indirect effect= 0.043\*, CI95% = [0.012, 0.078]) and endorser happiness (indirect effect= 0.044\*, CI95% = [0.012, 0.081]) on consumer selfie attitude. To ascertain the mediation types, the direct effects of endorser characteristics on CSA with authenticity as a mediator are analysed. As the direct effects (with the mediator) of similarity ( $\beta = 0.163$ ,  $p < 0.001$ ) are significant and positive, complementary partial mediations can be concluded (Zhao et al., 2010). This indicates that a portion of the effect of similarity on CSA is mediated through authenticity, while the other portion directly affects CSA independent of authenticity. However, the direct effect of endorser happiness ( $\beta = 0.035$ ,  $p > 0.05$ ) is nonsignificant, thus leading to a full mediation (Zhao et al., 2010). This means that authenticity fully mediates the relationship between happiness and CSA. Accordingly, H8a and H8b are both supported.

In summary, the results suggest that endorser authenticity partially and fully mediates the effects of endorser similarity and endorser happiness on consumer selfie attitude respectively, whereas it does not mediate the influences of endorser monetary-gain motive and endorser conspicuous brand usage on consumer selfie attitude.

**Table 21. Mediation analyses.**

Hypotheses	Total effect	Indirect effect	Indirect effect CI at 95%		Direct effect (With mediator)	Mediation type observed	Remark
			Lower bound	Upper bound			
H8a: SIM→AUT→CSA	0.206***	0.043*	0.012	0.078	0.163***	Partial mediation	<b>Supported</b>
H8b: HAP→AUT→CSA	0.079*	0.044*	0.012	0.081	0.035 <sup>NS</sup>	Full mediation	<b>Supported</b>
H8c: MON→AUT→CSA	-0.045 <sup>NS</sup>	-0.016 <sup>NS</sup>	-0.036	-0.003	-0.028 <sup>NS</sup>	No mediation	Not supported
H8d: CON→AUT→CSA	-0.046 <sup>NS</sup>	-0.018 <sup>NS</sup>	-0.041	0.000	-0.029 <sup>NS</sup>	No mediation	Not supported

Note: \*\*\* indicates  $p < 0.001$ , \*\* indicates  $p < 0.005$ , \* indicates  $p < 0.05$ , <sup>NS</sup> indicates insignificant.

## 5.7. Summary

This chapter presented the procedures and results of the data from the survey. The assessment of the measurement models confirmed that the construct measures were reliable and valid. Besides, the common method bias was not a serious concern in this study. The results of the structural model indicated that there was no indication of collinearity in this study. Moreover, it verified that the hypothesized model had good predictive accuracy and predictive relevance for consumer selfie attitude. Finally, the results supported 11 out of 14 hypothesized direct

relationships and 2 out of 4 hypothesized mediating relationships. The next chapter discusses the results in detail.

## **6. Chapter Six: Results and Discussion**

### **6.1. Chapter Preview**

This chapter discusses the findings in relation to the literature and it is structured as follows. First, section 6.2. presents the summary of findings. It is followed by section 6.3. which discusses the findings of the relationships between endorser characteristics and consumer selfie attitude. Then, section 6.4. discusses the results pertaining to endorser authenticity. Then, section 6.5. describes the relationships between consumer selfie attitude and endorsement outcomes. Further, section 6.6 discusses the results regarding the control variables in this study. Finally, section 6.7. offers a summary of this chapter.

### **6.2. Summary of Findings**

This thesis developed and tested a research model that explains how peer endorsers' characteristics directly as well as indirectly relate to viewers' responses through changed endorser authenticity in consumer selfies. Overall, the research model provides a moderate level of predictive accuracy ( $R^2 = 0.659$ ) and a high level of predictive relevance ( $Q^2 = 0.627$ ) for consumer selfie attitude (Hair et al., 2014), which supports the use of the proposed model.

As indicated earlier in section 1.3, the goal of this thesis is to explain the influences of peer endorser characteristics in consumer selfies on viewers' attitudes and behaviours based on Kapitan and Silvera's (2016) attribution-based framework. To accomplish the research goal, three specific research objectives are addressed. The corresponding findings are summarized below and listed in Table 22. Moreover, the findings in relation to the literature are elaborated in the following sections.

**Objective 1:** To determine peer endorser characteristics that are associated with viewers' attitudes toward consumer selfies for superficial processing and deep processing.

**Finding:** In the superficial processing path, attractiveness, endorser-brand fit, and endorser-viewer similarity contribute to a positive CSA. Although endorser happiness does not directly associate with CSA, it has an indirect influence on CSA via endorser authenticity. Conversely, in the deep processing path, perceived conspicuous brand usage and monetary-gain motive have nonsignificant relationships with consumer selfie attitude.

**Objective 2:** To examine the mediating effects of endorser authenticity on the relationships between peer endorser characteristics and consumer selfie attitude.

**Finding:** Two of the four proposed mediation relationships are confirmed: Endorser authenticity fully mediates the association between endorser happiness and CSA, whereas partially mediates the relationships between endorser-viewer similarity and CSA. However, endorser authenticity does not have mediation effects on the association of perceived conspicuous brand usage and monetary-gain motive with CSA.

**Objective 3:** To examine the relationships between consumer selfie attitude and endorsement effects.

**Finding:** Consumer selfie attitude is positively and significantly related to consumer selfie engagement, brand attitude, and purchase intention.

**Table 22. An overview of research objectives, hypotheses and results.**

Research objectives (RO)	Hypotheses (H)	Results
RO 1: To determine peer endorser	H1. The perceived attractiveness of the endorser in a consumer selfie is positively related to consumer selfie attitude	Supported

<b>Research objectives (RO)</b>	<b>Hypotheses (H)</b>	<b>Results</b>
characteristics that are associated with viewers' attitudes toward consumer selfies for superficial processing and deep processing.	<b>H2.</b> The perceived endorser-brand fit in a consumer selfie is positively related to consumer selfie attitude	Supported
	<b>H3a.</b> The perceived similarity between the endorser and the viewer in a consumer selfie is positively related to attitude towards the consumer selfie	Supported
	<b>H4a.</b> The perceived happiness of the endorser in a consumer selfie is positively related to attitude towards the consumer selfie	Not supported
	<b>H5a.</b> The perceived monetary-gain motive of the endorser in a consumer selfie is negatively related to attitude towards the consumer selfie	Not supported
	<b>H6a.</b> The perceived conspicuous brand usage by the endorser in a consumer selfie is negatively related to attitude towards the consumer selfie	Not supported
<b>RO 2:</b> To examine the mediating role of endorser authenticity on the relationships between peer endorser characteristics and consumer selfie attitude.	<b>H3b.</b> The perceived similarity between the endorser and the viewer in a consumer selfie is positively related to perceived authenticity of the endorser	Supported
	<b>H4b.</b> The perceived happiness of the endorser in a consumer selfie is positively related to perceived authenticity of the endorser	Supported
	<b>H5b.</b> The perceived monetary-gain motive of the endorser in a consumer selfie is negatively related to perceived authenticity of the endorser	Supported
	<b>H6b.</b> The perceived conspicuous brand usage by the endorser in a consumer selfie is negatively related to perceived authenticity of the endorser	Supported
	<b>H7.</b> The perceived authenticity of the endorser in a consumer selfie is positively related to attitude towards the consumer selfie	Supported
	<b>H8.</b> The perceived authenticity of the endorser mediates the influences of (a) perceived endorser-viewer similarity, (b) perceived endorser happiness, (c) perceived endorser monetary-gain motive, and (d) perceived endorser conspicuous brand usage on consumer selfie attitude.	Partially Supported



<b>Research objectives (RO)</b>	<b>Hypotheses (H)</b>	<b>Results</b>
<b>RO 3:</b> To examine the relationships between consumer selfie attitude and endorsement effects.	<b>H9.</b> Consumer selfie attitude is positively related to engagement with the consumer selfie.	Supported
	<b>H10.</b> Consumer selfie attitude is positively related to attitude towards the brand.	Supported
	<b>H11.</b> Consumer selfie attitude is positively related to purchase intention.	Supported

### **6.3. Endorser Characteristics Influencing Consumer Selfie Attitude**

This thesis adopts the attribution-based framework by Kapitan and Silvera (2016) to test the influences of six characteristics, whose relative importance (without mediator) on viewers' attitudes toward consumer selfies is listed in Table 23. As a result, four variables for superficial processing have positive influences on CSA, with attractiveness and endorser-brand fit being the strongest predictors, followed by endorser-viewer similarity and endorser happiness. However, two variables for deep processing (i.e., conspicuous brand usage and monetary-gain motive) do not have significant relationships with CSA.

This echoes the argument made by Kapitan and Silvera (2016) that attitude changes through the deep processing path are harder to achieve than it is through the superficial processing path, especially in the social media context. This is because viewers on social media, especially image-based platforms like Instagram, are usually distracted and have a lower need for cognition (Kapitan and Silvera, 2016). According to the elaboration likelihood model in the advertisement (Petty et al., 1983), when the motivations are lacking, viewers are more likely to process the message superficially and rely on simple cues (i.e., peripheral route) such as physical attractiveness of the endorser, instead of the quality of arguments contained in the advertisement (i.e., central route). Therefore, viewers may process the posts on social media superficially, which highlights the role of simpler cues, compared to the deep elaboration of the posts (Kapitan and Silvera, 2016). Given the relative simplicity and availability of cues

(e.g., a pretty face) in consumer selfies and viewers who are distracted and multi-tasking, superficial peer endorser characteristics become more dominant when influencing viewers' attitudes toward consumer selfies.

**Table 23. The relative importance of endorser characteristics to consumer selfie attitude (without mediator).**

The order of Constructs importance		Path coefficient
1	Endorser attractiveness	0.264 <sup>***</sup>
2	Endorser-brand fit	0.252 <sup>***</sup>
3	Endorser-viewer similarity	0.206 <sup>***</sup>
4	Endorser happiness	0.079 <sup>*</sup>
5/6	Endorser conspicuous brand usage	-0.028 <sup>NS</sup>
5/6	Endorser monetary-gain motive	-0.029 <sup>NS</sup>

### 6.3.1. Endorser Attractiveness

The findings suggest attractiveness is the most influential factor of consumer selfie attitude among all the peer characteristics tested. The more attractive the peer endorser is, the more the viewer likes the consumer selfie. Endorser attractiveness has been a well-established factor in celebrity endorsement literature (Knoll and Matthes, 2017, Amos et al., 2008). A great number of studies have shown that attractive individuals tend to hold sway over others, with their physical appeal often leading to unconscious influence (Griskevicius and Kenrick, 2013; Becker et al., 2005). This attractiveness bias extends to perceptions of personality, where physically attractive individuals are often associated with positive traits like sociability, mental health, warmth, and intelligence (Feingold, 1992). Moreover, peer endorser attractiveness has been found to positively impact endorsement effectiveness, fostering favourable attitudes towards advertisements, brands, and purchase intentions (Xiao and Ding, 2014; Munnukka et al., 2016). Nevertheless, recent research in the realm of celebrity social media endorsements

suggests a decline in the significance of attractiveness, possibly due to its prevalence among celebrity endorsers, thus diminishing its attention-grabbing effect (Gong and Li, 2017).

By contrast, this thesis shows that in consumer selfies featuring unknown peers, of whom the viewers do not have deep knowledge, attractiveness becomes more of a prominent determinant compared to celebrity endorsers. In fact, attractiveness is the most influential factor of consumer selfie attitude among all the peer characteristics tested. This may be because viewers on social media, especially image-based platforms like Instagram, are usually distracted and have a lower need for cognition (Kapitan and Silvera, 2016). According to the elaboration likelihood model in the advertisement (Petty et al., 1983), when the motivations are lacking, viewers are more likely to process the message superficially and rely on simple cues (i.e., peripheral route) such as background music or physical attractiveness of the endorser, instead of the quality of arguments contained in the advertisement (i.e., central route). Hence, viewers may process the posts on social media superficially, which highlights the role of simpler cues like endorser attractiveness, compared to the deep elaboration of the caption of the posts (Kapitan and Silvera, 2016). Especially in consumer selfies featuring unknown peers, of whom the viewers do not have deep knowledge, attractiveness becomes more of a prominent determinant compared to celebrity endorsers.

### **6.3.2. Endorser-Brand Fit**

Endorser-brand fit, the other critical determinant of advertisement effectiveness (Amos et al., 2008, Knoll and Matthes, 2017, Erdogan, 1999), was tested for the first time in the context of consumer selfies. This thesis finds that as comparably influential as endorser attractiveness in consumer selfies, the more perceived congruent the image of peer endorser has with the brand, the more favourable the viewer's attitude is.

In the context of consumer selfies, more peer endorsers have unfit images with the brands (Presi et al., 2016, Rokka and Canniford, 2016), compared with celebrity endorsers who are chosen to fit with the brand's image in ads. Although unfit consumer selfies may also integrate with certain subcultural images (e.g., hip-hop lifestyle with luxury products) that may resonate with

broader forms of popular culture and mass audience (Rokka and Canniford, 2016), this thesis reveals that a poor match between endorser and brand in consumer selfies may have as detrimental effects as those in endorsement advertising.

According to social adaptation theory (Homer and Kahle, 1986), people accommodate mental structures to incorporate novel and unexpected information. Therefore, an incongruent endorser in the advertisement requires more mental effort to process, hence people only pay more attention to the endorser when congruence exists (Kamins, 1990, Homer and Kahle, 1986). The findings from this study support these theories by showing that viewers may have less favourable attitudes toward consumer selfies with a poor match between the brand and the endorser.

### **6.3.3. Endorser-Viewer Similarity**

This thesis confirms that similarities between viewers and endorsers are a significant determinant of attitude toward consumer selfies. This outcome is consistent with that of previous peer endorsement research in the context of advertisements, where similarity positively affects consumers' attitudes toward an advertisement and a brand (Munnukka et al., 2016, Sorum et al., 2003). It can be explained social identity theory (Tajfel et al., 1979), where consumers develop in-group favouritism to maintain favoured social identities and meet self-verification goals (Turner et al., 1979, Escalas and Bettman, 2003).

In the consumer selfie context, social media platforms offer opportunities to see more similar others, identification is rendered to occur readily. Previous research found that celebrity endorser's influence on consumers is dependent upon their ideal self-images (Choi and Rifon, 2012). Compared to celebrities who usually have a fancy lifestyle and outstanding looks, peers present mundane and ordinary lifestyles that viewers may resonate with (Presi et al., 2016). Therefore, this thesis argues that a peer endorser is more likely to match the viewer's actual self-image.

Moreover, the result shows that similarities to the endorser not only directly enhances viewers' attitude towards consumer selfie, but also its influence is partially mediated by perceived authenticity. This indicates that viewers like consumer selfies from similar others, partly because they are considered more authentic and genuine.

#### **6.3.4. Endorser Happiness**

Despite that endorser happiness does not directly influences consumer selfie attitude, it indirectly transmits its influence through perceived authenticity. This finding means that happy consumer selfies are seen as more authentic and genuine, which therefore enhances viewer attitude. Although existing consumer selfie research has identified the positive effects of happy emotions in consumer selfies (Nanne et al., 2021, Liu, 2018), this thesis is the first to verify that endorser authenticity explains its effects.

Moreover, this is one of the first studies to use perceptual measures to study endorser happiness. Previous consumer selfie studies investigating endorser happiness have used smiles as a proxy to measure a happy endorser (e.g., Nanne et al., 2021, Liu, 2018). These studies manipulated endorser facial expressions in experiments stimuli or manually coded smiles in the actual consumer selfies. However, not all types of smiles are interpreted as equally happy (Sheldon et al., 2021) and the same smile can be interpreted as different emotions in different contextual conditions (Krumhuber et al., 2021). Therefore, by directly measuring the viewer's perception of endorser happiness this study provides a more realistic situation than previous studies.

#### **6.3.5. Endorser Monetary-Gain Motive**

This thesis tested for the first time the relationship between perceived monetary-gain motive and attitude towards the selfies, which was nonsignificant. It appears that, when exposed to consumer selfies, viewers rely more on superficial cues, rather than cognitively demanding factors like the monetary-gain motives of the peer endorsers.

This is different from existing brand-related UGC literature, which shows that monetary-gain motive of the poster negatively affects viewers' responses on Twitter (Kim and Lee, 2017, Kim and Song, 2018). The explanation for these inconsistent findings may lie in the form of brand-related content. Previous researchers used texts with sponsored information as stimuli in their studies, which might draw viewers' attention to posters' motives (Kim and Lee, 2017, Kim and Song, 2018). By comparison, this study did not include any captions in the stimuli and viewers are distracted by the presence of the endorsers' faces (Hartmann et al., 2021). Consequently, in this study monetary-gain motive may be less evident and takes more effort for viewers to figure out.

### **6.3.6. Endorser Conspicuous Brand Usage**

This thesis has also examined, for the first time, conspicuous brand usage in consumer selfies, which was found prominent in previous qualitative research (Rokka and Canniford, 2016). Interestingly, the findings of this study show that the relationship between conspicuous brand usage and CSA is nonsignificant. In other words, conspicuous brand usage does not trigger viewers' negative attitudes in consumer selfies.

This result contradicts previous research by Ferraro et al. (2013), who learnt that consumers have unfavourable attitudes toward brands-flaunting behaviours. This may be because 89.9% of respondents in this study are heavy Instagram users (more than daily), and they may have become accustomed to the Instagram culture of positive self-presentation (Matley, 2018) and conspicuous brand displays (Rokka and Canniford, 2016, Mosley et al., 2017), and subsequently their attitudes are not affected by this behaviour. The other possible reason is that the brands investigated in this study are less conspicuous than previous study that examined luxury champagne consumer selfies (Rokka and Canniford, 2016). Consequently, in this study conspicuous brand usage in consumer selfies might not have a sufficiently salient influence on viewers.

## 6.4. Limited Influence of Endorser Authenticity

Based on the attribution-based framework by Kapitan and Silvera (2016) and prior research on endorsements (Ilicic et al., 2018), this thesis tests for the first time the mediating effects of endorser authenticity on the relationships between four characteristics and consumer selfie attitudes. The results verify authenticity's mediating role for the effects of two variables in superficial processing (i.e., endorser-viewer similarity and endorser happiness) but not for the two variables in deep processing (i.e., monetary-gain motive, conspicuous brand usage). Hence, the results support Kapitan and Silvera's (2016) proposition that superficial characteristics can lead to endorsement effectiveness through a biased perception of authenticity.

Moreover, previous endorsement research has found that perceived endorser authenticity mediates the effects of celebrity/model endorsers' looks and actions on advertisement effectiveness (Ilicic and Brennan, 2020, Ilicic et al., 2018, Jun and Yi, 2020, Hu et al., 2020). Therefore, the findings of this study extend the mediating role of endorser authenticity of ordinary peers in consumer selfies. The results show that perceived peer endorser authenticity positively mediates the associations between endorser-viewer similarity and endorser happiness with consumer selfie attitude.

However, the findings do not support Kapitan and Silvera's (2016) framework that an endorser appearing authentic is the key to achieving endorsement effectiveness, as perceived authenticity only explained two of six relationships in this study. Further, the indirect influences of endorser characteristics on viewers via authenticity are rather weak, compared to the direct influences of other endorser characteristics (e.g., attractiveness). It may indicate that perceived endorser authenticity is not the determining factor in the context of consumer selfies. This thesis can infer that unlike in ads endorsers are believed to be paid to promote the brands, ordinary peers are usually believed to voluntarily endorse brands on social media; hence, authenticity may become a general belief that has limited effects in the context of consumer selfies. Therefore, the direct influences that positive endorser characteristics (e.g., attractiveness) exert on viewers are stronger and subsequently, the indirect effects from endorser authenticity are attenuated.

### **6.4.1. The Mediating Role of Endorser Authenticity**

The results confirm that endorser authenticity mediates the effects of endorser-viewer similarity and endorser happiness on consumer selfie attitude.

#### *6.4.1.1. Endorser Happiness*

First, endorser authenticity fully mediates the relationship between endorser happiness and consumer selfie attitude. This finding supports the argument by Kapitan and Silvera (2016) that the positive emotions of endorsers may induce viewers to think the endorsers genuinely enjoy the advertised products, which leads to positive endorsement effects.

The full mediator of authenticity on the effects of endorser happiness in consumer selfies is different from that of previous research on endorsement in advertising (Kulczynski et al., 2016). Specifically, previous research identified that contagious emotion (i.e., pleasantness) as the mediator of the influences of an endorser's happy facial expression on advertisement effectiveness (e.g., ad attitude) (Kulczynski et al., 2016, Hatfield et al., 1993). This thesis reveals that different underlying mechanisms in selfies vs. ads may exist because endorser smiles in ads are generally believed to be carefully staged and performed, whereas consumer selfies usually reflect real-life consumer experiences (Presi et al., 2016). Subsequently, peer happiness in consumer selfies suggests that they are genuinely enjoying the brand, which highlights the role of authenticity.

#### *6.4.1.2. Endorser-Viewer Similarity*

Second, endorser authenticity partly mediates the relationship between endorser-viewer similarity and consumer selfie attitude. This finding supports the argument by Kapitan and



Silvera (2016) that positive endorser characteristics like similarity can drive the biased perception of endorser authenticity that leads to effective endorsers.

Moreover, this finding adds to previous research that endorser-viewer similarity highlights a shared identity and motivates the viewers to think the endorser in a positive light (Thompson and Malaviya, 2013). For example, they see more competence, trustworthiness, goodwill and favourable disposition toward the similar endorser, which in turn enhance attitude towards the advertisement and brand (Sorum et al., 2003, Phua, 2016). This study extends these works by showing that perceived similarity to endorsers also leads to the inner characteristic of authenticity that increases endorsement effectiveness. Overall, this study finds that similar others are perceived as more authentic or genuine, which enhances consumer selfie attitudes.

#### **6.4.2. The Antecedents of Endorser Authenticity**

In addition to the abovementioned positive endorser characteristics, two negative antecedents of endorser authenticity are identified in this study. The relative importance of endorser characteristics to endorser authenticity is shown in Table 24. As a result, endorser happiness and viewer-endorser similarity are the strongest and positive antecedents, followed by conspicuous brand usage and monetary-gain motive being negative antecedents.

Despite nonsignificant mediation effects, monetary-gain motive and conspicuous brand usage are negatively associated with endorser authenticity. First, it shows that individuals who flaunt brands in consumer selfies are considered inauthentic. This result supports the existing literature that discretion (i.e., inconspicuous) (Moulard et al., 2015) and legitimacy (i.e., following certain norms) (Nunes et al., 2021) influence the perception of authenticity. Second, the thesis finds that people who post consumer selfies for material rewards are perceived as inauthentic. This is consistent with the literature that integrity (i.e., intrinsically motivated) (Nunes et al., 2021) and candidness (i.e., honesty) influence the perception of authenticity.

**Table 24. The relative importance of endorser characteristics to endorser authenticity.**

The order of importance	Constructs	Path coefficient
1	Endorser happiness	0.344***
2	Endorser-viewer similarity	0.335***
3	Endorser conspicuous brand usage	-0.138*
4	Endorser monetary-gain motive	-0.129**

### 6.4.3. Endorser Authenticity and Consumer Selfie Attitude

Perceived endorser authenticity positively associate with consumer selfie attitude. This indicates that when the endorser is evaluated as authentic, viewers are more likely to have favourable attitudes toward the consumer selfie. This outcome is consistent with findings from previous research that perceived endorser authenticity contributes to consumer responses in the context of print advertisements featuring unknown models (Ilicic et al., 2018). Future studies could further test the influence of endorser authenticity in other contexts.

### 6.5. Consumer Selfie Attitude and Endorsement Effects

In this study, a new construct of consumer selfie attitude was introduced and tested for the first time its relationships with proposed endorsement effects, which were all significant. This thesis shows that consumer selfie attitude predicts selfie engagement, brand attitude and purchase intention. These results of relationships between CSA and endorsement effects are similar to those of advertisement research, where advertisement attitude contributes to consumer engagement, brand attitude and purchase intention (Choi and Rifon, 2012, Deng et al., 2021). This outcome provides empirical support for the claim made by previous researchers (Presi et al., 2016, Rokka and Canniford, 2016) that consumer selfies have the potential to contribute to marketplace conversation and shape the marketplace brand image.

## **6.6. Control Variables and Endorsement Effects**

The aforementioned relationship persists even following adjustments for brand familiarity (Section 6.6.1), image quality (Section 6.6.2), and the number of likes (Section 6.6.3). Subsequent sections expound upon the outcomes related to the control variables within the research model. Besides, the potential contributions and implications of these results regarding the control variables are discussed in the next chapter.

### **6.6.1. Brand Familiarity and Endorsement Effects**

This study utilized consumer selfies featuring two prominent shoe brands (Puma and Reebok) and two coffee brands (Starbucks and Costa), chosen due to their relatively high presence among consumers on Instagram. These brands are among the most widely recognized and frequently patronized both offline and on social media within the targeted populations of this study (Statista, 2019a, Statista, 2019b).

Brand familiarity refers to the extent of consumer exposure and engagement with a brand, as defined by Baker et al. (1986). The existing literature suggests brand familiarity positively influences consumers' perceptions and evaluations of brands, ultimately impacting their purchase decisions (Rahman and Mannan, 2018). Therefore, with its potential confounding effects on viewers' perceptions and behaviours, it is necessary that the viewers' brand familiarity is taken into consideration in this study.

The results indicate that brand familiarity exhibits a nonsignificant relationship with the two selfie-related outcome variables (i.e., consumer selfie attitude and consumer selfie engagement). However, as expected, it is significantly associated with the two brand-related consumer behaviours (i.e., brand attitude and purchase intention). These findings suggest that

viewers' attitudes and perceptions towards consumer selfie pictures remain consistent irrespective of their familiarity with the brands. Nonetheless, brand familiarity positively and significantly influences consumers' brand attitudes and purchase decisions, regardless of the consumer selfies they are exposed to.

In summary, while brand familiarity may not influence consumers' attitudes towards consumer selfies, it directly and significantly impacts their overall brand attitude and purchase intention. These insights contribute to a deeper understanding of the interplay between brand familiarity, consumer perceptions, and behaviours in the context of consumer-generated content on social media platforms. Furthermore, it can be predicted that consumer selfies featuring unfamiliar brands may have even higher impacts on consumer behaviours without the confounding effects of brand familiarity. Consequently, future studies could test the research model with unfamiliar brands or even unknown brands to further elucidate the effects of brand familiarity on consumer responses to consumer selfies. Further research in this direction would enhance our comprehension of consumer behaviour in the digital age and provide valuable insights for marketers and brands seeking to optimize their presence on social media platforms.

### **6.6.2. Image Quality and Endorsement Effects**

Although this thesis focuses on the effects of peer endorsers' characteristics on endorsement effectiveness in consumer selfies, it does not specifically address image-related variables. However, it includes image quality (Benoit et al., 2020) as a control variable to mitigate potential confounding effects from image-relevant elements in consumer selfies.

Previous research showed that high-quality images positively impact consumers' perceived brand quality and purchase intention on visual social network sites like Instagram (Teo et al., 2019). However, results from this study showed that image quality has nonsignificant relationships with the two brand-related consumer behaviours (i.e., brand attitude and purchase intention) but significant relationships with the two selfie-related outcome variables (i.e., consumer selfie attitude and consumer selfie engagement).

Furthermore, these findings are on the contrary to the those from brand familiarity. Based on the results from these two control variables, it can be inferred that in this study the selfie-related perceptions and behaviours of c are significantly affected by the image itself, whereas brand-related perceptions and behaviours are rather influenced by the brands that are featured in the image.

### **6.6.3. The Number of Likes and Endorsement Effects**

Finally, this study includes the number of likes in each consumer selfie as a control variable. Previous consumer selfie study found that, the number of likes, as a form of social influence from other users, positively influences the brand attitudes among selfies viewers (Liu and Foreman, 2019). This is because consumers trust and follow influential individuals' brand choices, potentially influencing their purchasing decisions (Liu and Foreman, 2019). Further, previous researchers showed that social media influencers with high numbers of followers are found more likeable, partly because they are considered more popular, which also contribute to viewers' product involvement, buying intention, and intention to pass along posts (Jin and Phua, 2014, De Veirman et al., 2017).

However, contrary to these studies, the number of likes in the selfies does not have significant relationships with any of the dependent variables (i.e., consumer selfie attitude, consumer selfie engagement, brand attitude, and purchase intention). This suggests that in this study, the number of likes is not a prominent factor in influencing viewers' perceptions and behaviours compared to other factors such as endorser attractiveness and endorser similarity. This may be due to the expectation that, compared with online influencers, ordinary brand users typically possess fewer followers and receive fewer likes. Consequently, influential and popular peers-created content do not inherently guarantee enhanced perceptions regarding the person and the brand.

## **6.7. Summary**

This chapter presented the results and compared them with previous works in the literature. In response to the three research objectives, three main findings were discussed and summarised as follows. First, peer endorser characteristics affect consumer selfie attitude through the superficial processing path rather than the deep processing path. Second, perceived endorser authenticity may not be the determining factor of peer endorsement in the context of consumer selfies. Third, consumer selfie attitude contribute to all proposed endorsement effects (i.e., selfie engagement, brand attitude and purchase intention). The following chapter is devoted to concluding the thesis.

## **7. Chapter Seven: Conclusion**

### **7.1. Chapter Preview**

This chapter concludes the thesis and is structured as follows: Section 7.2 offers a summary of the study. It follows the theoretical contributions (section 7.3.) and the managerial contributions (section 7.4). Lastly, section 7.5. acknowledges the limitations and offers directions for future research.

### **7.2. Summary of the Study**

The thesis aimed to address a fundamental marketing inquiry: What types of consumer selfies effectively benefit brands on social media platforms? This question was approached by examining the impact of various peer endorser characteristics in consumer selfies on viewers' attitudes and behaviors, utilizing Kapitan and Silvera's (2016) attribution-based framework.

The findings revealed that factors such as endorser attractiveness, endorser-brand fit, and endorser-viewer similarity positively influence Consumer Selfie Attitude (CSA). While there was no significant direct relationship between endorser happiness and CSA, it was found that the influence of endorser happiness is fully mediated by endorser authenticity. Additionally, endorser authenticity acts as a mediator in the relationships between endorser-viewer similarity and CSA.

On the other hand, the study determined that perceived conspicuous brand usage and monetary-gain motives do not have a significant impact on CSA. Furthermore, four significant antecedents of endorser authenticity in consumer selfies were identified, including endorser-viewer similarity, happiness, conspicuous brand usage, and monetary-gain motives.

Lastly, it was established that consumer selfie attitude contributes to consumer selfie engagement, brand attitude, and purchase intention, underscoring the broader implications of consumer selfies in shaping consumer perceptions and behaviors in the realm of social media marketing.

The majority of the results support the use of the proposed model, which, in combination with the detailed findings outlined in the prior chapter, provides several theoretical (section 7.3.) and practical contributions (section 7.4.).

### **7.3. Theoretical Contributions**

This research contributes to the literature in a few ways: First, it adds to the increasing body of research on the effectiveness of consumer selfies and the limited literature on peer endorsement in the context of social media (section 7.3.1.). Second, it contributes to the understudied areas of Br-UGC in the literature, including the visual aspects of Br-UGC and the effectiveness of posts on social media platforms (section 7.3.2.). Third, this thesis provides the first empirical evidence for the predictions derived from Kapitan and Silvera's (2016) attribution-based model in the context of peer endorsement (section 7.3.3.). Finally, this research extends the existing literature on human brand authenticity by identifying four antecedents of endorser authenticity (section 7.3.4.). These theoretical contributions are elaborated below.

#### **7.3.1. Peer Endorser Characteristics Lead to Effective Consumer Selfies**

The realm of advertising and endorsements has undergone a profound evolution, driven by the emergence of social media platforms and the integration of online influencers alongside traditional celebrities (Albert et al., 2017; Gong and Li, 2017; Kulczynski et al., 2016). However, amidst this transformation, limited attention has been given to the effectiveness of peer endorsements, particularly within the context of social media (Sorum et al., 2003; Thompson and Malaviya, 2013; Munnukka et al., 2016), resulting in a notable gap in



understanding peer endorsement dynamics in the digital age. Consumer selfies, serving as a form of peer endorsement on social media, offer an authentic and relatable alternative to conventional celebrity endorsements (Presi et al., 2016). This study investigates the several variables that influence the effectiveness of peer endorsement on social media, shedding light on an understudied aspect of contemporary advertising.

#### *7.3.1.1. Effective Peer Endorser Characteristics*

Findings reveal that four endorser characteristics are effective in consumer selfies. Each variable makes a significant contribution to the literature, as described below.

First, the research findings indicate that *endorser attractiveness* significantly influences consumer selfie attitude, surpassing all other peer endorser characteristics tested. This contrasts with a recent study in celebrity endorsement literature suggesting a decline in the impact of celebrity attractiveness on social media audience attention (Gong and Li, 2017). In the context of consumer selfies featuring unknown peers, attractiveness emerges as a more influential factor compared to celebrity endorsers. This prominence of attractiveness may stem from the superficial processing of social media content by distracted viewers with lower cognitive engagement (Kapitan and Silvera, 2016).

*Endorser-brand fit* a concept referring to the perceived alignment between the brand and the endorser in an advertisement, was examined for the first time in the context of consumer selfies and found a positive influence on consumer selfie attitude (Choi and Rifon, 2012). While previous research has explored endorser-brand fit in traditional advertising contexts, such as print and television ads, its examination within peer endorsement remains scarce. Unlike traditional celebrity endorsements, where endorsers are meticulously chosen to align with the brand's image, consumer selfies often feature peer endorsers whose images may not seamlessly mesh with the endorsed brand (Presi et al., 2016; Rokka and Canniford, 2016). Despite the potential resonance of these unfit images with certain subcultural contexts, this thesis found a significant negative influence of incongruent endorser-brand pairings in consumer selfies, mirroring the pitfalls observed in traditional endorsement advertising. Drawing from social

adaptation theory (Homer and Kahle, 1986), which posits that individuals adapt mental structures to assimilate new information, this study elucidates that incongruent endorsers demand greater cognitive effort to process, resulting in diminished viewer attention and less favourable attitudes towards the endorsed brands (Kamins, 1990; Homer and Kahle, 1986).

This thesis confirms that the *similarity between endorsers and viewers* significantly influences attitudes toward consumer selfies, building upon previous research on peer endorsement in advertisements and extending it to the realm of social media (Munnukka et al., 2016; Sorum et al., 2003). Additionally, prior studies have shown that the impact of celebrity endorsers on consumers is contingent upon their alignment with ideal self-images, whereas peer endorsers, reflecting ordinary lifestyles, are more relatable to viewers (Choi and Rifon, 2012; Presi et al., 2016). Consequently, peer endorsers are more likely to resonate with viewers' actual self-image, thereby shaping attitudes toward consumer selfies. Moreover, the study reveals that perceived similarities with the endorser not only directly enhance attitudes but also partially mediate through *perceived authenticity*, indicating viewers' preference for consumer selfies from similar others due to their perceived genuineness.

*Endorser happiness*, representing their perceived positive emotional expressions, holds significant importance in shaping viewer attitudes and behaviours towards advertisements and brands. Despite its lack of direct influence on consumer selfie attitude, indirectly affects viewer perceptions through the lens of perceived endorser authenticity. This implies that joyful consumer selfies are perceived as more genuine, consequently bolstering viewer attitudes. While prior consumer selfie research has acknowledged the positive impact of happiness in these images (Nanne et al., 2021; Liu, 2018), this thesis uniquely establishes the explanatory power of endorser authenticity in mediating these effects. Furthermore, this study represents one of the pioneering efforts to employ perceptual measures in evaluating endorser happiness. Previous research in consumer selfies has predominantly relied on smiles as a proxy for assessing endorser happiness, either through experimental manipulations or manual coding of facial expressions (Nanne et al., 2021; Liu, 2018). However, it is crucial to recognize that not all smiles convey equal levels of happiness (Sheldon et al., 2021), and contextual factors can influence the interpretation of facial expressions (Krumhuber et al., 2021). Therefore, by

directly gauging viewers' perceptions of endorser happiness, this study offers a more nuanced and realistic assessment compared to previous methodologies.

### *7.3.1.2. Other Factors in Consumer Selfies*

Other factors were also investigated in consumer selfies. Despite their non-significant effects, they have unique implications for the literature, as explained below.

First, this thesis empirically examines *conspicuous brand usage* in consumer selfies, a topic previously explored qualitatively (Rokka and Canniford, 2016). Contrary to expectations, the study finds no significant relationship between conspicuous brand usage and consumer selfie attitude. This contrasts with findings from the existing literature, such as those of Ferraro et al. (2013), who observed negative attitudes towards brand conspicuous brand usage. One possible explanation for this disparity is the prevalence of heavy Instagram users (89.9% of respondents) in this study, possibly desensitizing them to such behaviours due to the platform's culture of positive self-presentation (Matley, 2018) and the commonality of conspicuous brand displays (Rokka and Canniford, 2016; Mosley et al., 2017). Additionally, the brands examined in this study may be less conspicuous compared to luxury champagne brands scrutinized previously (Rokka and Canniford, 2016), potentially reducing their impact on viewer attitudes. Consequently, conspicuous brand usage in consumer selfies within this study may lack the necessary salience to significantly influence viewer perceptions.

In addition, this study conducted a separate test to examine the direct relationships between endorser characteristics and brand attitude (See Appendix D). Unexpectedly, despite the absence of a significant relationship with consumer selfie attitude, conspicuous brand usage surprisingly exhibited a significant positive association with brand attitude. This unexpected finding suggests the need for further investigation into the mechanism behind this effect. One possible explanation is that conspicuous brand usage by other consumers enhances the symbolic values of the brand (Kim and Jang, 2017), thereby bolstering brand attitude.

*Brand familiarity*, considering its potential impact on viewer perceptions and purchase decisions (Rahman and Mannan, 2018), is included as a control variable in this study. The findings reveal that while brand familiarity does not significantly affect consumer selfie attitude and engagement, it strongly correlates with brand attitude and purchase intention, as anticipated. This implies that attitudes towards consumer selfies remain consistent irrespective of brand familiarity, yet brand familiarity significantly influences overall brand attitude and purchase decisions. Therefore, it suggests that consumer selfies featuring unfamiliar brands may have greater impacts on consumer behaviours, warranting further exploration of consumer selfies with unfamiliar or unknown brands.

This study incorporates the *number of likes* in each consumer selfie as a control variable, considering its potential influence as a form of social endorsement from other users (Liu and Foreman, 2019). Previous research has shown that a higher number of likes positively affects brand attitudes among viewers of selfies (Liu and Foreman, 2019). Moreover, social media influencers with large followings are perceived as more likeable and popular, leading to increased product involvement, buying intention, and intention to share posts (Jin and Phua, 2014; De Veirman et al., 2017). However, contrary to these findings, the number of likes in selfies does not show significant relationships with any dependent variables in this study (i.e., consumer selfie attitude, engagement, brand attitude, and purchase intention). This suggests that ordinary brand users, as opposed to online influencers and celebrities, typically have fewer followers and receive fewer likes, diminishing the impact of their content on viewer perceptions. Therefore, the mere presence of likes or popularity may not guarantee enhanced perceptions of the peer endorsers or the brands. This finding highlights the potential difference in mechanisms between peer endorsement and celebrity endorsement on social media.

### *7.3.1.3. The Consumer Selfie Literature*

This research adds to the increasing body of research on the effectiveness of consumer selfies. In the digital marketing literature, it remains debatable that if consumer selfies, a special type of user-generated content, are beneficial for brands on social media. Some studies suggest that the presence of human faces in branded images does not enhance brand-related outcomes

(Hartmann et al., 2021, Yu and Ko, 2021), whereas others found that endorser characteristics, such as selfies with attractive and happy endorsers improved viewer responses (e.g., likes intention and brand attitude) (Liu and Foreman, 2019, Nanne et al., 2021). This study supports the view of the latter by validating other endorser characteristics (e.g., endorser-viewer similarity and endorser-brand fit) increase viewers' consumer selfie attitudes.

This study extends the ongoing discussion by identifying various endorser characteristics that relate to viewers' consumer selfie attitudes. Consumer selfie attitude is a new construct this thesis introduced that predicts selfie engagement, brand attitude and purchase intention. This thesis finds that endorser characteristics adopted from the existing endorsement advertisement literature (i.e., endorser attractiveness, endorser-brand fit, endorser-viewer similarity and endorser happiness) affect consumer selfie attitude (Amos et al., 2008, Choi and Rifon, 2012, Kulczynski et al., 2016). However, the variables that are related to the motives of the peer endorsers in consumer selfies (i.e., conspicuous brand usage and monetary-gain motive) do not have significant relationships with consumer selfie attitude (Kim and Lee, 2017, Ferraro et al., 2013). Moreover, this thesis identifies that endorser authenticity explains the effects of happiness and similarity on viewers' consumer selfie attitudes. Overall, this research supports the application of consumer selfies in digital marketing by identifying the peer endorser characteristics that effectively generate viewers' positive responses to the brands on social media.

#### *7.3.1.4. The Endorsement in Advertising Literature*

The literature on endorsement in advertising has evolved significantly, transitioning from traditional media to encompass social media platforms and from relying solely on celebrities to incorporating online influencers (Albert et al., 2017; Gong and Li, 2017; Kulczynski et al., 2016). However, limited literature has studied the effectiveness of peer endorsement, specifically in the context of advertisements (Sorum et al., 2003; Thompson and Malaviya, 2013; Munnukka et al., 2016), leaving an important research gap in peer endorsement in the context of social media. Consumer selfies, serving as a form of peer endorsement on social media, offer a relatable and authentic alternative to traditional celebrity endorsements (Presi et

al., 2016). Therefore, this study provides valuable insights into factors influencing the effectiveness of peer endorsement on social media. Moreover, the research findings suggest significant theoretical implications for endorsement literature in terms of both similar and different influences of endorser characteristics in peer endorsement versus celebrity endorsement, particularly in the context of social media platforms.

For example, it reveals that in consumer selfies featuring unknown peers, endorser attractiveness outweighs other peer characteristics, contrasting recent findings in celebrity endorsement literature. This prominence of peer endorser attractiveness contradicts existing findings about the weakening effects of celebrity attractiveness on social media (Gong and Li, 2017). However, it is consistent with the established "source attractiveness model" in celebrity endorsement in traditional media literature (Erdogan, 1999; Amos et al., 2008).

Moreover, the concept of endorser-brand fit, established in traditional advertising, also shows a positive influence on consumer selfie attitude (Choi and Rifon, 2012). Unlike celebrity endorsements, a significant number of peer endorsers may have images that do not seamlessly align with the endorsed brand (Presi et al., 2016; Rokka and Canniford, 2016). Despite the unfit images, it was suspected that they may integrate with multiple subcultural images (e.g., hip-hop, "bling-bling," and "gangster" lifestyles) that resonate with broader forms of popular culture and mass audiences (Presi et al., 2016; Rokka and Canniford, 2016), thereby reducing detrimental effects on viewer attitude. However, it reveals that congruence between endorser and brand is still a strong and significant determinant of consumer selfie attitude, indicating similarity effects to celebrity endorsements on social media.

The similarity between endorsers and viewers significantly influences attitudes toward consumer selfies. Prior studies have shown that the impact of celebrity endorsers on consumers depends on their alignment with ideal self-images, while peer endorsers, reflecting ordinary lifestyles, are more relatable to viewers (Choi and Rifon, 2012; Presi et al., 2016). Therefore, peer endorsers are more likely to resonate with viewers' actual self-image, shaping attitudes toward consumer selfies.

Moreover, the study reveals that the influence of endorser similarity also partially mediate through perceived authenticity. Likewise, endorser happiness only indirectly influences viewer perceptions through perceived endorser authenticity, suggesting that joyful consumer selfies are seen as more genuine, thereby enhancing viewer attitudes. This thesis uniquely establishes the role of endorser authenticity in mediating these effects in the context of peer endorsement on social media.

Past research has indicated that social media influencers and celebrities with large followings and a high number of likes are often perceived as more credible, likeable, and popular, leading to increased endorsement effects (Jin and Phua, 2014; De Veirman et al., 2017). However, contrary to this expectation, the number of likes in selfies does not enhance perceptions of the peer endorsers or the brands.

In conclusion, this study makes a significant contribution to the limited literature on peer endorsements, especially within the context of social media. By examining the factors that influence the effectiveness of peer endorsement, this research provides valuable insights into how peer endorsements on social media, complementing existing literature on celebrity endorsements. The findings not only deepen our understanding of the dynamics of peer endorsements in the digital age but also offer practical guidance for marketers aiming to optimize their strategies on social media platforms. Overall, this study enhances our comprehension of peer endorsements and their implications for endorsement literature, paving the way for further exploration in this area.

### **7.3.2. The Brand-related User-Generated Content Literature**

The emergence of Br-UGC has attracted substantive attention from marketing scholars. However, despite the diverse forms and types of Br-UGC, the literature has predominantly focused on certain aspects of it, such as textual Br-UGC and online reviews. Therefore, by studying consumer selfies as a unique form of Br-UGC, this study sheds light on the relatively limited literature regarding the aspects of visual Br-UGC and social media posts, as discussed following.

### *7.3.2.1. Consumer Reviews vs. Consumer Selfies*

Br-UGC can be categorized into two types based on the platforms they are generated: posts on social media and online reviews. Both types of Br-UGC can have a significant influence on other consumers' perceptions and behaviours related to the brands (Rosario et al., 2016; Hennig-Thurau et al., 2015). On the one hand, intensive research on the effectiveness of online reviews has highlighted reviewer characteristics, such as reviewer's reputation, expertise, and identity disclosure have been identified to contribute to review helpfulness (Xu, 2014; Liu and Park, 2015). Compared with the research on online consumer reviews, less attention has been given to Br-UGC on social networking sites, where consumer selfies are usually generated. Therefore, by studying the endorser characteristics that influence the effectiveness of consumer selfies, this study adds to the limited literature on the effectiveness of consumer posts on social media.

Based on the findings, this thesis reinforces that consumer selfies diverge from consumer reviews in two key aspects. Firstly, on review websites, consumers are often anonymous or have limited personal information, where viewers can only make limited inferences about them from signals such as profile information and system-generated reputation (Xu, 2014). In contrast, in the context of consumer selfies, the presence of the ordinary peer endorser is focal to the Br-UGC. Therefore, the peer's personal life and details easily accessible both from the details in featured in photo, allowing viewers to make more rounded evaluations about the person. These findings from this supports this difference by highlighting that endorser characteristics that are more subjective, personal to themselves and can be examined through their selfies, including attractiveness, endorser-brand fit, and endorser-viewer similarity contribute to a positive consumer selfies attitude.

Secondly, on review websites, viewers typically read product reviews primarily to make purchase decisions in online or offline stores, thus they are more cognitively engaged with the message elements (Kapitan and Silvera, 2016). However, viewers on social media are often distracted, exhibiting a lower need for cognition (Kapitan and Silvera, 2016), which may lead



them to process content superficially, further highlighting the role of certain source characteristics, such as perceived likability, similarity, and attractiveness (Kapitan and Silvera, 2016). In this study, attribution-based framework was applied to assess the impact of six characteristics on viewers' attitudes toward consumer selfies (Kapitan and Silvera, 2016). The findings confirmed that four variables related to superficial processing are all positively influence CSA, with attractiveness and endorser-brand fit being the most significant predictors. In contrast, two variables linked to deep processing—conspicuous brand usage and monetary-gain motive—do not show significant relationships with CSA.

In conclusion, this thesis provides empirical findings to distinguish between posts on social media and online reviews. While both forms of Br-UGC significantly influence consumer perceptions and behaviours, this thesis emphasizes the need for a deeper understanding of the effectiveness of different types of Br-UGC. It calls for future research to address the currently limited literature focusing on posts on social media.

#### *7.3.2.2. Visual vs. Textual Br-UGC*

This thesis studies consumer selfies as a visual form of Br-UGC. Previous research has shown that visual content enhances message vividness, leading to increased engagement on social media platforms (Liu et al., 2017; Fang et al., 2018). Compared to textual content, visual content provides additional social, emotional, and aesthetic values, influencing viewers' perceptions and attitudes (Smith and Pyle, 2015). Moreover, consumer-generated images with an amateur aesthetic have a greater influence on social media viewers, resulting in more favourable brand attitudes (Colliander and Marder, 2018). While the significance of visual Br-UGC is acknowledged in the literature, there is limited understanding of how specific visual characteristics, particularly human-related factors such as recognizable faces in consumer selfies, influence viewers' perceptions and behaviours. Hence, by studying the influence of different characteristics in consumer selfies, this thesis contribute to the understanding of visual Br-UGC in the literature.

Apart from finding that endorser attractiveness, endorser-brand fit, endorser similarity, and happiness—factors that are normally more difficult to examine in textual form—are significant in the visual form, this study also revealed established variables that may have distinct effects in visual vs. textual Br-UGC. For example, this thesis marks the first investigation into the relationship between perceived *monetary-gain motives* and attitudes towards selfies within the context of consumer selfies, yielding nonsignificant results. It indicates that when viewers encounter consumer selfies, they tend to rely more on superficial cues rather than engaging with cognitively demanding factors such as the monetary motives of peer endorsers. This finding diverges from existing literature on Br-UGC, which suggests that the monetary-gain motives of posters negatively impact viewer responses on platforms like Twitter (Kim and Lee, 2017; Kim and Song, 2018). The discrepancy in findings may be attributed to the form of the content. Previous studies utilised text-based stimuli containing sponsored information, potentially drawing attention to the motives of the posters (Kim and Lee, 2017; Kim and Song, 2018). In contrast, this study omitted captions from the stimuli, thus directing viewers' focus towards the endorsers' facial expressions (Hartmann et al., 2021). Consequently, the monetary-gain motives may have been less conspicuous in this study, necessitating greater cognitive effort on the part of viewers to discern. This result highlights how established variables in the Br-UGC literature may have different effects in textual versus visual forms of Br-UGC.

Moreover, while this study does not focus on image-relevant variables such as brightness and visual complexity, it examines the effects of peer endorsers' characteristics in consumer selfies as visual characteristics in Br-UGC. Nonetheless, the variable *image quality* (Benoit et al., 2020) is included as a control variable to mitigate potential confounding effects from image-related elements. Previous studies have demonstrated the positive influence of high-quality images on consumers' perceived brand quality and purchase intention on visual social network sites like Instagram (Teo et al., 2019). However, this study finds that image quality does not significantly affect brand attitude and purchase intention but does have significant relationships with consumer selfie attitude and engagement. These results diverge from those regarding *brand familiarity*, together suggesting that while selfie-related outcomes (i.e., selfie engagement and selfie attitude) are influenced by image quality, brand-related outcomes (i.e., brand attitude and purchase intention) are more influenced by the brands featured in the image.

Overall, through the exploration of specific visual characteristics in consumer selfies, such as endorser attractiveness and brand fit, this research unveils their significant impact on viewer perceptions and attitudes, underscoring their distinct effects in visual Br-UGC compared to textual forms. Furthermore, the investigation into the relationship between perceived monetary motives and viewer attitudes towards consumer selfies reveals nuanced insights (Kim and Lee, 2017; Kim and Song, 2018), suggesting that viewers may not prioritize cognitive factors in their engagement with visual content (Kapitan & Silvera, 2016). Overall, this study contributes to a deeper understanding of visual Br-UGC dynamics, highlighting the importance of considering content form and presentation in comprehending viewer responses in the dynamic landscape of social media marketing.

### **7.3.3. Empirical Evidence to Attribution-Based Model**

This thesis provides the first empirical evidence for the predictions derived from Kapitan and Silvera's (2016) attribution-based model in the context of peer endorsement. Previous research on endorsement has empirically validated the mediation role of authenticity derived from Kapitan and Silvera's (2016) attribution-based framework in the context of celebrity and influencer endorsement (Kapitan et al., 2022) but not in the context of peer endorsement. The model suggests that consumers make dispositional attribution of endorsers through superficial and deep processing to achieve endorsement effectiveness. Kapitan and Silvera's (2016) framework is responsive to the current changes in endorsements, which extended from traditional media (e.g., televisions) to social media, and from traditional celebrities to online influencers and peers. Therefore, this study successfully adopts this model in the consumer selfie context to examine peer endorser effectiveness on social media.

Overall, this thesis advances attribution-based theory (Kapitan and Silvera, 2016) by showing that viewers generally process social media peer endorsement posts superficially with the focus on simple and superficial cues (e.g., attractiveness) rather than the endorser's authenticity. In other words, perceived endorser authenticity is not the determining factor in the context of consumer selfies. This finding is contrary to Kapitan and Silvera's (2016) theory that regardless of the types of endorsers and platforms, perception of endorser authenticity the key to achieve

endorsement effectiveness. This is because consumers tend to believe that posts from peers on social media are trustworthy and authentic (Jin, 2018), which may attenuate the effects from endorser authenticity. Therefore, the direct effects that superficial positive endorser characteristics exert on viewers are stronger than the indirect effects through endorser authenticity. This result suggests that attribution-based theory (Kapitan and Silvera, 2016) needs to be refined to social media peer endorsement settings by identifying alternative mediators beyond authenticity.

### *7.3.2.1. Superficial and Deep Processing*

On the one hand, the study found that consumer selfies affect viewers' attitudes through the superficial processing path (e.g., endorser attractiveness) rather than the deep processing path (e.g., monetary-gain motive). These findings support Kapitan and Silvera's (2016) argument that social influences of endorsement on social media may occur through the superficial processing path more easily than through the deep processing path. They argue that viewers on social media are usually distracted, which leads them to rely on simple cues to process posts rather than deep elaboration (Kapitan and Silvera, 2016).

### *7.3.2.2. The Mediating Role of Endorser Authenticity*

On the other hand, the results show that only two of the effects of endorser characteristics on viewers are mediated by perceived endorser authenticity (i.e., endorser-viewer similarity and endorser happiness) and the indirect influences are weaker than those exert directly from other endorser characteristics (e.g., endorser-brand fit). These outcomes may disagree with Kapitan and Silvera's (2016) proposition that an endorser appearing authentic is the key to achieving endorsement effectiveness. This thesis infers that unlike in advertisements, peer endorsers are generally believed to be authentic for posing branded images on social media, hence authenticity has a decreased influence on viewers' attitudes. Therefore, the limited effects of authenticity may indicate that perceived peer endorser authenticity is not the determining factor in the context of consumer selfies. This result suggests that Kapitan and Silvera's (2016) framework needs to be modified in order to find alternative mechanisms in the context of

consumer selfies. For example, pleasure and arousal, which were revealed as mediators in Instagram endorsement advertising (Kusumasondjaja and Tjiptono, 2019), are suggested to be analysed as mediators in the future.

### **7.3.3. Antecedents of Endorser Authenticity**

Finally, this research extends the existing literature on human brand authenticity by identifying four antecedents of endorser authenticity. Previous research has identified that physical appearances, such as asymmetrical facial structure, freckles and moles (Ilicic et al., 2018), direct eye gaze and smile (Ilicic and Brennan, 2020) influence consumers' perceptions of the endorser authenticity. Furthermore, prior studies have found that individuals' actions on social media, such as brand mentions (Hu et al., 2020), interaction with fans (Jun and Yi, 2020), blunders (Lee et al., 2020) and activism effort (Thomas and Fowler, 2023) have effects on perceived authenticity.

Compared to the existing literature, this study shows that endorser-viewer similarity and endorser happiness enhance perceived authenticity, whereas monetary-gain motive of the endorser and conspicuous brand usage by the endorser dilutes perceived authenticity. These findings enhance the understanding of existing literature on endorser authenticity conceptualisation (Moulard et al., 2015, Nunes et al., 2021, Ilicic and Webster, 2016). For example, the results provide empirical support for Moulard et al. (2015)'s claims that both rarity (talent, discretion and originality) and stability (consistency, candidness and morality) influence consumer perceptions of celebrity authenticity.

## **7.4. Managerial Contributions**

The research findings highlight the managerial relevance of integrating consumer-generated selfies into brand promotion strategies. Section 7.4.1 explores practical strategies for integrating consumer selfies into brand promotion efforts to create a positive impact on consumer perception and behaviors. With insights on peer endorser characteristics, section

7.4.2 develops selection strategies for consumer selfies with the aid of AI technologies. Moreover, section 7.4.3 discusses how to encourage the production of consumer selfies in social media campaigns. Lastly, section 7.4.4 summarizes the synthesized key findings and actionable strategies for managers to optimize the use of consumer selfies in brand promotion on social media.

### **7.4.1. Applying Consumer Selfies to Brand Promotions**

A recent business press article by (BYERS, 2023) highlights a significant disparity between marketers' actions and consumer behaviour on social media platforms. It reports that while 47% of marketers actively promote and sell their brands directly on social media, only 42% of social media users feel comfortable making purchases through these channels. This discrepancy underscores the importance of aligning marketing strategies with consumer preferences to optimize conversion rates effectively. Moreover, the article reveals a decline in consumer trust in traditional advertising methods, with 75% expressing scepticism towards advertisements. This emphasizes the critical need for brands to prioritize authenticity and transparency in their marketing communications to resonate with their audience and foster trust in an increasingly discerning consumer landscape.

In light of these challenges, leveraging consumer selfies in brand promotions offers a more authentic and relatable approach to engage consumers on social media platforms. Findings from this research suggest that practitioners should integrate consumer selfies in their brand promotion efforts on social media. By tapping into consumer-generated content in the form of selfies, brands can harness the authenticity and relatability that such content brings. As consumer selfies garner engagement and positive feedback from viewers, the likelihood of viewers forming favorable attitudes and behaviors towards the showcased brands increases.

Practical strategies for utilizing consumer selfies include actively engaging with and amplifying this content on social media channels. For instance, social media managers can proactively "like" or repost consumer selfies that resonate with the brand's image and messaging. This not only acknowledges and appreciates consumers' efforts but also fosters a

sense of community and connection among the audience. Additionally, consumer selfies can be effective tools for driving e-commerce sales. Brands can seamlessly integrate links or call-to-action buttons into reposted consumer selfies, enabling viewers to directly purchase the featured products. This direct linkage between consumer-generated content and e-commerce functionality streamlines the purchasing process and capitalizes on the immediacy and influence of social media engagement.

In essence, by strategically incorporating consumer selfies into their social media marketing strategies, brands can enhance social media engagement, build trust, and ultimately drive conversion rates. This approach contributes to the overall success of brand promotion efforts in an era where authenticity and relatability are paramount in consumer-brand interactions.

#### **7.4.2. Selection Strategies for Consumer Selfies**

The widespread availability of branded photos from everyday consumers on social media platforms has made it easier for marketers to access consumer selfies for reposting. However, social media managers are confronted with the challenge of discerning the most suitable consumer selfies, as certain elements such as mismatched brand-consumer images and conspicuous brand usage may raise doubts about their effectiveness (Rokka and Canniford, 2016, Presi et al., 2016). Therefore, the findings from this study offer valuable insights into identifying the types of consumer selfies that elicit positive responses from viewers.

The research indicates that the attractiveness of peer endorsers, the fit between endorsers and brands, and the similarity between endorsers and viewers are the primary determinants influencing viewers' attitudes toward consumer selfies. As a result, managers should prioritize selecting consumer selfies that feature individuals who are not only attractive but also align with the brand's image and resonate with ordinary consumers. Additionally, it is beneficial to ensure that peer endorsers genuinely enjoy the brands they showcase in consumer selfies, as this authenticity fosters a more positive attitude among viewers. For example, an ideal consumer selfie for a sports shoe brand like Nike would feature a happy, attractive, and athletic individual engaging in outdoor sports.

Practitioners can explore the potential of artificial intelligence (AI) in assisting with the selection of consumer selfies. One approach involves utilizing machine learning methods that leverage the identified variables and their weights to evaluate each consumer selfie associated with the brand. Previous research has demonstrated the capability of computers to recognize facial attractiveness and emotional cues in images (Iyer et al., 2021, Kim et al., 2018). Moreover, the thesis suggests measuring endorser-viewer similarity and endorser-brand fit by assessing the resemblance to a typical consumer of the target brand. This evaluation may encompass demographic and personal characteristics that are visually evident in consumer selfie posts, including gender, age, socioeconomic status, interests, and perceived personality traits. By leveraging such selection tools, social media managers can streamline the process of choosing consumer selfies with greater ease and accuracy.

Specifically, facial recognition technology enables the analysis of demographic characteristics in selfies, allowing for targeted content that resonates with the intended audience. Emotion analysis helps ensure that featured endorsers genuinely convey positive sentiments towards the brand, fostering greater authenticity. Additionally, AI enables continuous monitoring of posts' performance, providing valuable insights for refining content strategies (Kim et al., 2018). Therefore, AI algorithms can automate the selection process by identifying the most suitable selfies that align with the brand's image and messaging, ensuring relevance and quality.

Moreover, AI has the capability to generate idealized images based on existed image-database (Deng et al., 2009), which can complement the selection process. By utilizing generative AI models, practitioners can create visuals that align perfectly with the brand's image and messaging. These AI-generated images can portray ideal scenarios and representations that resonate effectively with the target audience, enhancing the overall impact of the brand promotion efforts. Additionally, AI-generated images can help address any gaps or limitations in the available pool of consumer selfies, ensuring that the content presented to viewers is consistently compelling and relevant.



In summary, leveraging consumer selfies for brand promotion on social media platforms offers both opportunities and challenges. This study highlights the importance of selecting consumer selfies that align with criteria such as peer endorser attractiveness and brand-consumer fit to enhance authenticity and engagement. By adopting AI technologies and adhering to best practices in selfie selection, marketers can maximize the impact of consumer-generated content, driving greater audience engagement and brand recognition.

### **7.4.3. Productions of Consumer Selfies**

Furthermore, the respondents of this study did not have negative attitudes toward conspicuous brand usage and monetary-gain motive in consumer selfies. Accordingly, companies do not have to avoid applying consumer selfies conspicuously use brands to show off and posted for material rewards, which in fact may significantly benefit social media campaigns. For instance, companies have the opportunity to design products that encourage consumers to showcase the brand on social media platforms, thereby enhancing brand visibility and engagement. Limited edition products, for example, can serve as effective tools for capturing “attentional capital” on social media, including shares, follows, and likes (Gerlitz and Helmond, 2013).

Additionally, in the development of social media campaigns, companies can utilize monetary incentives to incentivize consumers to share selfies featuring the brand. This approach not only encourages user-generated content but also fosters greater consumer engagement with the brand (Presi et al., 2016). Furthermore, it may have advantages to maintain sponsorship disclosure as it ensures transparency in line with relevant social media regulations. By upholding honesty and transparency, brands can enhance trust and credibility among consumers, thereby strengthening their brand image and rapport within the market.

### **7.4.4. Summary**

In summary, the findings of this research provide valuable managerial implications, as listed in Table 25 and explained as follows. Firstly, the research indicates a positive correlation

between consumer selfie attitude and endorsement outcomes, including selfie engagement, brand attitude, and purchase intention. This suggests that leveraging consumer-generated selfies in brand promotion can effectively shape positive attitudes and behaviors towards the brand. To capitalize on this relationship, managers are advised to actively utilize likeable consumer selfies on social media channels and integrate them into e-commerce strategies to enhance consumer perceptions and drive purchase decisions.

Furthermore, the findings highlight the importance of peer endorser characteristics, such as attractiveness, brand fit, and viewer similarity, in influencing consumer selfie attitude. By selecting consumer selfies featuring endorsers who align with these characteristics, brands can increase viewer engagement and foster positive attitudes towards the brand. Leveraging AI machine learning methods can facilitate the identification of ideal consumer selfies based on these criteria.

Last, the research suggests that the relationship between consumer selfie attitude and factors like monetary gain motive and conspicuous brand usage is nonsignificant. This implies that brands need not shy away from leveraging consumer selfies for promotional purposes, even if the selfies are conspicuously branded or posted with the intent of gaining material rewards. Instead, brands can design products that encourage consumers to showcase them on social media or offer monetary incentives in social media campaigns to stimulate the production of consumer selfies.

In conclusion, the insights gleaned from this research provide actionable strategies for managers to effectively leverage consumer selfies in brand promotion efforts, ultimately enhancing consumer engagement and fostering positive brand perceptions in the digital landscape.

**Table 25. Research findings and managerial implications**

<b>Findings</b>	<b>Managerial strategies</b>	<b>Specific actions examples</b>
Consumer selfie attitude is positively related to selfie engagement, brand attitude and purchase intention.	Applying likeable consumer selfies to brand promotion on social media to create positive attitudes and behaviours toward the brand.	Frequently “like” or repost likeable consumer selfies on social media or use them as instruments for e-commerce to enhance attitudes and behaviours toward the brand.
Peer endorser attractiveness, endorser-brand fit and endorser-viewer similarity are directly and positively associated with consumer selfie attitude. Besides, endorser happiness is indirectly associated with consumer selfie attitude via endorser authenticity.	Selecting consumer selfies featuring consumers who are attractive, happy, congruent with brand image, and similar to other ordinary consumers in order to increase viewers’ attitudes toward the consumer selfies.	Use AI machine learning methods with the variables’ weights in the results to rate each consumer selfie.
The relationship between monetary-gain motive and consumer selfie attitude is nonsignificant.	Do not avoid applying consumer selfies conspicuously use brands to show off.	Design products that help consumers to gain social media attention, such as limited editions.
The relationship between conspicuous brand usage and consumer selfie attitude is nonsignificant.	Do not avoid applying consumer selfies explicitly posted for material rewards.	Use monetary incentives in social media campaigns for producing consumer selfies.

## **7.5. Limitations and Future Research**

This research has limitations that could be addressed in future studies. First, the proposed model was developed and tested under a specific context, that is, self-published consumer selfies on Instagram’s brand-tagged sections. Thus, the findings cannot be simply generalised to consumer selfies published by companies. The difference matters because the direct source (i.e., publisher) affects how people evaluate the actual source (i.e., endorser) (Dou et al., 2012).

This thesis infers that consumer selfies published by companies may affect the influence of the perceived monetary gain motive of the endorser on consumer selfie attitude in the model. Replicating the study in different situational contexts may provide companies with more opportunities to develop favourable consumer selfies.

It is also important to note that this thesis focuses on consumer selfies on Instagram, which may put boundary conditions on the findings with regard to the product categories. It is argued that hedonic products (as opposed to utilitarian products), whose consumption produces enjoyment and pleasure (Hirschman and Holbrook, 1982), are more commonly featured in consumer selfies to convey consumers' sensory experiences and emotions (Liu et al., 2019, Presi et al., 2016, Eagar and Dann, 2016). Therefore, the findings may be more relevant to hedonic products, such as designer clothing and leisure food, but might not apply to utilitarian products (e.g., microwaves) (Hirschman and Holbrook, 1982).

Although this thesis wanted to contribute to the literature on consumer selfies, future researchers could examine other forms of peer endorsements in different forms. For example, brand-related UGC on YouTube are found more likely to be associated with personal experience and with less positive brand sentiment, compared to other social media (Roma and Aloini, 2019). Therefore, it would be valuable to investigate YouTube vlog endorsements (Munnukka et al., 2019), so that the model of viewer responses to peer endorser characteristics can be validated and modified as needed. Studying these contexts could provide useful implications for social media marketing strategies applicable to a broader range of platforms.

Besides, the survey was conducted among Instagram users aged 18-44, the findings may not be simply generalised to other social media platforms that have different demographics of users. For example, although Instagram is led by female users (56%) (Statista, 2022), Twitter users are predominately males (more than 70%) (Shepherd, 2023). Moreover, Facebook has a larger group of users aged above 45 (more than 30%), compared to those of Instagram (less than 20%) (NASR, 2022, Cat, 2022). This research chooses Instagram because it is the most popular visual social media with 1 billion monthly active users (Mohsin, 2019), which suits the context of consumer selfies the most. However, future research could test the model using samples

from different social media platforms. Likewise, the sample is limited to the U.K. respondents; hence, it would be valuable to replicate the study in other geographical contexts.

This study used stimuli that included only the consumer selfie itself, leaving out the sender's profile information and attached captions. This research did this to enable viewers to focus on the consumer selfie images and to avoid the confounding effects from the textual contents, such as brand mentions (Hartmann et al., 2021). Although social media audiences may be too distracted to be cognitively engaging in the texts in the posts (Kapitan and Silvera, 2016), previous research found visual and textual features are complementary in predicting the popularity of a post (Mazloom et al., 2016). Since a strong argument helps deep processing (as opposed to superficial processing) of the endorsed message (Kapitan and Silvera, 2016), the text information may change the relationships in the model. For example, in deep processing, the perceived monetary-gain motive may have a significantly negative relationship with consumer selfie attitude. Accordingly, future research could test the model in consumer selfies when given enough text information from the endorser profile and caption.

The research did not take into consideration the potential difference in the levels of product involvement between coffee and sports shoes. Product involvement refers to the personal relevance of the product to the respondent, which is determined by the extent to which the product is interesting and important to the consumer (Malar et al., 2011). For example, sports shoes may be more identity-relevant and more likely to be used for self-expression than coffee, hence they may have higher product involvement (Berger and Heath, 2007). High (low) product involvement leads viewers to carefully (superficially) process the content, which may change the relationships in this model (Kapitan and Silvera, 2016, Munnukka et al., 2016). Therefore, future research can study the moderating role of product involvement in the hypothesized model.

Moreover, this study did not particularly rule out online influencers from the consumer selfie stimuli samples, which may result in potential confounding effects from influencer endorsement. For instance, viewers may recognise the endorser and therefore evaluate the selfies based on their previous parasocial interactions with the influencers (Gong and Li, 2017),

instead of the visual cues in the selfies. Therefore, future researchers should manually check if the stimuli are posted by online influencers.

Last, it is argued that the nonsignificant influence of conspicuous brand usage on consumer selfie attitude may be due to the non-luxurious brands and experienced Instagram users in this study. Hence, researchers could use luxurious brand stimuli and recruit inexperienced Instagram users to verify this claim. A multi-group comparison between luxurious and non-luxurious brands, as well as between experienced and inexperienced users seems to be promising.

# Appendices

## Appendix A. Examples of Stimuli

### A.1. An Example of Starbucks Stimuli



## A.2. An Example of Costa Coffee Stimuli





### A.3. An Example of Reebok Stimuli



#### A.4. An Example of Puma Stimuli



## **Appendix B. Pre-Test Questionnaire**

### **(Block 1: Consent form)**

#### **Participant Information Sheet**

The University of York PhD researcher [Yufei Huang] would like to invite you to take part in her PhD research project. This page is to introduce the nature of the research and to ask you if you would like to participate in the study.

#### **The aim of the research**

The aim of the study is to investigate how people perceive different consumer selfies.

#### **What will happen to the information?**

Data will only be used in aggregated form and processed for the purpose outlined in this page. This study complies with ethics and data protection rights by the University of York. If you are interested in the results of this research, you can send a request to the PhD researcher by email, and a summary of the findings can be sent to you after the thesis has been awarded.

#### **Do I have to take part?**

No, participation in this study is completely voluntary. If you change your mind at any point during the survey or within two weeks after you have finished the survey, you will be able to withdraw your participation by contacting Qualtrics directly.

#### **Questions or concerns**

If you have any questions about this participant information sheet or concerns about how your data is being processed, please contact the PhD researcher Yufei Huang (yh1621@york.ac.uk) in the first instance. If you are still dissatisfied with the result, please

contact the Chair of the ethics panel at the University of York (elmps-ethics-group@york.ac.uk).

### **Right to complain**

If you are unhappy with any issues related to this survey, you also have a right to complain to the Information Commissioner's Office. For information on reporting a concern to the Information Commissioner's Office, see [www.ico.org.uk/concerns](http://www.ico.org.uk/concerns).

- Yes, I agree to take part in the survey.

### **(Block 2: Screener)**

Which country do you live in?

- In the U.K.
- Outside the U.K.

How old are you?

- 18-44
- Below 18 or above 44

Do you use Instagram?

- Yes
- No

### **(Block 3: Stimuli 1 + IV)**

This is a screenshot from a random Instagram user's post that tagged a brand, please answer the following questions according to this post.

(Stimuli 1)

1. I think the person in the post is

Unattractive/ Attractive

2. I think the person in the post and the tagged brand is

Bad fit/ Good fit

3. How much do you agree with the statements about the post?

I think the person in the post and I have a lot in common

I think the person in the post is happy

I think this person in the post uses the tagged brand to show off

I think this person posted about the brand because he/she is rewarded by the brand for doing so.

**(Block 4: Stimuli 2 + IV)**

This is a screenshot from a random Instagram user's post that tagged a brand, please answer the following questions according to this post

(Stimuli 2)

4. I think the person in the post is

Unattractive/ Attractive

5. I think the person in the post and the tagged brand is

Bad fit/ Good fit

6. How much do you agree with the statements about the post?

I think the person in the post and I have a lot in common

I think the person in the post is happy

I think this person in the post uses the tagged brand to show off

I think this person posted about the brand because he/she is rewarded by the brand for doing so.

**(Block 5: Demographics)**

7. How old are you?

18-24

25-34

35-44

8. What is your highest education level?

High school

College

Undergraduate degree

Postgraduate degree

9. What is your ethnic group?

Asian

Black/African/Caribbean

White/Caucasian

Mixed/multiple ethnic groups

Others

10. What is your gender?

Male

Female

Other

Prefer not to say



## **Appendix C. An Example of the Main Questionnaires**

### **Puma Questionnaire**

#### **(Block 1: Consent form)**

#### **Participant Information Sheet**

The University of York PhD researcher [Yufei Huang] would like to invite you to take part in her PhD research project. This page is to introduce the nature of the research and to ask you if you would like to participate in the study.

#### **The aim of the research**

The aim of the study is to investigate how people perceive different consumer selfies.

#### **What will happen to the information?**

Data will only be used in aggregated form and processed for the purpose outlined in this page. This study complies with ethics and data protection rights by the University of York. If

you are interested in the results of this research, you can send a request to the PhD researcher by email, and a summary of the findings can be sent to you after the thesis has been awarded.

### **Do I have to take part?**

No, participation in this study is completely voluntary. If you change your mind at any point during the survey or within two weeks after you have finished the survey, you will be able to withdraw your participation by contacting Qualtrics directly.

### **Questions or concerns**

If you have any questions about this participant information sheet or concerns about how your data is being processed, please contact the PhD researcher Yufei Huang (yh1621@york.ac.uk) in the first instance. If you are still dissatisfied with the result, please contact the Chair of the ethics panel at the University of York (elmps-ethics-group@york.ac.uk).

### **Right to complain**

If you are unhappy with any issues related to this survey, you also have a right to complain to the Information Commissioner's Office. For information on reporting a concern to the Information Commissioner's Office, see [www.ico.org.uk/concerns](http://www.ico.org.uk/concerns).

Yes, I agree to take part in the survey

**(Block 2: Screener)**

Which country do you live in?

- In the U.K.
- Outside the U.K.

How old are you?

- 18-44 years old
- Below 18 or above 44 years old

Do you use Instagram?

- Yes
- No

**(Block 3: Stimuli + DV/ IV)**

This is a random Instagram user's post that tagged Puma, please answer the following questions according to this photo.

(Stimuli)

1. I think the person in the photo is

- Genuine
- Real
- Authentic

2. I think the photo is

- Bad/ Good
- Irritating/ Not irritating
- Uninteresting/ Interesting
- Unlikeable/Likeable

3. How likely will you respond to the post?

- I would 'like' the post
- I would comment on the post
- I would share the post

4. How much do you agree with the following statements?

- I like Puma
- I feel positive towards Puma
- I feel favourable towards Puma

5. How much do you agree with the following statements?

- If I were buying sports shoes, the likelihood of purchasing Puma is high
- The probability that I would consider buying Puma is high

My willingness to buy Puma is high if I were buying sports shoes

6. I think the photo quality is

Bad/good

**(Block 4: Repeat Stimuli + DV/ IV)**

(Stimuli repeat)

7. I think the person in the photo is:

Unattractive/ Attractive

Ugly/ Beautiful

Not sexy/ Sexy

Bad looking/Good looking

8. How much do you agree with the statements about the person in the photo?

The person in the photo and I have a lot in common

The person in the photo and I are a lot alike

I can easily identify with the person in the photo

9. I think the person in the photo and Puma are

- Not compatible/ Compatible
- Bad fit/ Good fit
- Irrelevant/ Relevant
- Bad match/ Good match

10. I think the person in the photo is

- Happy
- Joyful
- Enthusiastic
- Pleased

11. I think the person posted and tagged the photo about Puma

- because he/she is paid for doing so
- solely for money
- to receive material rewards from the brand
- Please select "Somewhat agree" for this statement (**attention check**)

12. I think the person in the photo is using Puma

- to impress other people
- to show off
- to gain the approval from others

**(Block 5: Demographics, Control V)**

13. How old are you?

- 18-24 years old
- 25-34 years old
- 35-44 years old

14. Gender

- Male
- Female
- Other
- Prefer not to say

15. What is your current employment status?

- Employed/Self-employed
- Student
- Out of work
- Retired

16. What is your highest education level?



- Secondary education (GCSE/ 10th Grade USA) or lower
- A-level/ High school Diploma or vocational qualification
- Undergraduate degree
- Postgraduate degree or doctorate

17. How often do you use Instagram every week?

- Hourly
- Several times each day
- Once daily
- Several times each week
- once a week

18. How familiar are you with the brand Puma?

- Not at all familiar/ Very familiar

19. Have you purchased Puma in the last 18 months?

- Yes
- No

## Appendix D. An Additional Test

In addition to the proposed model in this thesis, an additional and separate test was conducted to examine the direct relationships between endorser characteristics and brand attitude. The outcome of the examination is listed in Table 26 and displayed in Figure 8 for better illustration.

The majority of endorser characteristics have no significant effects on brand attitude apart from endorser-viewer similarity ( $\beta = 0.249$ ,  $p < 0.001$ ) and conspicuous brand usage shows positive relationships with brand attitude ( $\beta = 0.124$ ,  $p < 0.05$ ), even when brand familiarity is controlled.

Surprisingly, despite the nonsignificant relationship between conspicuous brand usage and consumer selfie attitude, it has a significant yet positive association with brand attitude. This unexpected positive direct effect from conspicuous brand usage calls for researchers to make further efforts in exploring a mechanism. A possible explanation is that conspicuous brand usage by other consumers leads to more symbolic values of the brand (Kim and Jang, 2017), which subsequently enhances brand attitude.

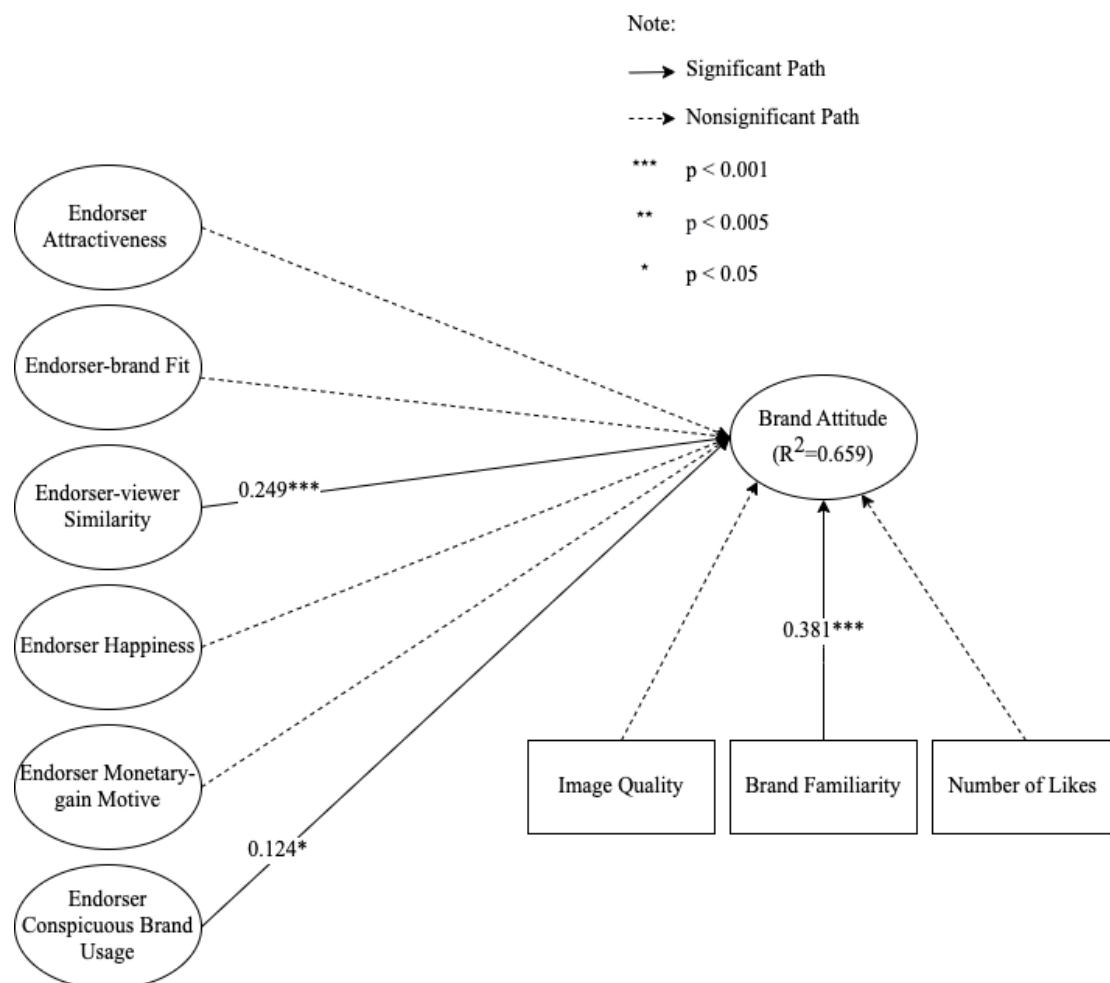
Overall, although most of the endorser characteristics could not provide brand values directly and instantly, two characteristics (i.e., endorser-viewer similarity and conspicuous brand usage) significantly affect brand attitude. Accordingly, future researchers could use alternative theories to explore factors in consumer selfies that directly influence brand-related outcomes.

**Table 26. Outcome of structural model examination in a separate test.**

Paths	Path coefficient	T statistics	P-Values
ATT → BA	-0.054 <sup>NS</sup>	0.864	0.387
FIT → BA	0.032 <sup>NS</sup>	0.514	0.607
SIM → BA	0.249 <sup>***</sup>	4.792	0.000
HAP → BA	-0.001 <sup>NS</sup>	0.016	0.987

Paths	Path coefficient	T statistics	P-Values
MON → BA	-0.084 <sup>NS</sup>	1.017	0.309
CON → BA	0.124*	2.307	0.021
<b>Control variable</b>			
FAM → BA	0.381	8.109	0.000
IQ → BA	0.072	1.283	0.200
NL → BA	-0.002	0.045	0.964

Note: \*\*\* indicates  $p < 0.001$ , \*\* indicates  $p < 0.005$ , \* indicates  $p < 0.05$ , <sup>NS</sup> indicates nonsignificant



**Figure 8. Outcome of the separate test.**

## Reference

- AAKER, J. L., BRUMBAUGH, A. M. & GRIER, S. A. 2000. Nontarget Markets and Viewer Distinctiveness: The Impact of Target Marketing on Advertising Attitudes. *Journal of Consumer Psychology*, 9, 127-140.
- AHEARNE, M., GRUEN, T. W. & JARVIS, C. B. 1999. If looks could sell: Moderation and mediation of the attractiveness effect on salesperson performance. *International Journal of Research in Marketing*, 16, 269-284.
- AJZEN, I. 1985. From Intentions to Actions: A Theory of Planned Behavior. *Action Control*.
- ALBERT, N., AMBROISE, L. & VALETTE-FLORENCE, P. 2017. Consumer, brand, celebrity: Which congruency produces effective celebrity endorsements? *Journal of Business Research*, 81, 96-106.
- ALLISON, T. H., DAVIS, B. C., WEBB, J. W. & SHORT, J. C. 2017. Persuasion in crowdfunding: An elaboration likelihood model of crowdfunding performance. *Journal of Business Venturing*, 32, 707-725.
- AMARO, S. & DUARTE, P. 2015. An integrative model of consumers' intentions to purchase travel online. *Tourism Management*, 46, 64-79.
- AMOS, C., HOLMES, G. & STRUTTON, D. 2008. Exploring the relationship between celebrity endorser effects and advertising effectiveness - A quantitative synthesis of effect size. *International Journal of Advertising*, 27, 209-234.
- ARGYRIS, Y. A., WANG, Z. H., KIM, Y. & YIN, Z. Z. 2020. The effects of visual congruence on increasing consumers' brand engagement: An empirical investigation of influencer marketing on instagram using deep-learning algorithms for automatic image classification. *Computers in Human Behavior*, 112.
- BAKER, A. M., DONTU, N. & KUMAR, V. 2016. Investigating How Word-of-Mouth Conversations About Brands Influence Purchase and Retransmission Intentions. *Journal of Marketing Research*, 53, 225-239.
- BAKER, W., HUTCHINSON, J. W., MOORE, D. & NEDUNGADI, P. 1986. BRAND FAMILIARITY AND ADVERTISING - EFFECTS ON THE EVOKED SET AND BRAND PREFERENCE. *Advances in Consumer Research*, 13, 637-642.
- BANERJEE, S., BHATTACHARYYA, S. & BOSE, I. 2017. Whose online reviews to trust? Understanding reviewer trustworthiness and its impact on business. *Decision Support Systems*, 96, 17-26.
- BARON, R. M. & KENNY, D. A. 1986. THE MODERATOR MEDIATOR VARIABLE DISTINCTION IN SOCIAL PSYCHOLOGICAL-RESEARCH - CONCEPTUAL, STRATEGIC, AND STATISTICAL CONSIDERATIONS. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- BBC. 2013. 'Selfie' named by Oxford Dictionaries as word of 2013 [Online]. Available: <https://www.bbc.co.uk/news/uk-24992393> [Accessed].
- BECKER, D. V., KENRICK, D. T., GUERIN, S. & MANER, J. Y. 2005. Concentrating on beauty: Sexual selection and sociospatial memory. *Personality and Social Psychology Bulletin*, 31, 1643-1652.
- BECKER, J. M., KLEIN, K. & WETZELS, M. 2012. Hierarchical Latent Variable Models in PLS-SEM: Guidelines for Using Reflective-Formative Type Models. *Long Range Planning*, 45, 359-394.
- BEDEIAN, A. G. & MOSSHOLDER, K. W. 2000. On the Use of the Coefficient of Variation as a Measure of Diversity. *Organizational Research Methods*, 3, 285-297.

- BEKK, M., SPÖRRLE, M., VÖLCKNER, F., SPIES, E. & WOSCHÉE, R. 2017. What is not beautiful should match: how attractiveness similarity affects consumer responses to advertising. *Marketing Letters*, - 28, - 522.
- BELK, R. W. 1983. Worldly Possessions: Issues and Criticisms. *Advances in consumer research*, 10, 514.
- BENOIT, J. S., RAVIKUMAR, A., MARSACK, J. D. & ANDERSON, H. A. 2020. Understanding the Impact of Individual Perceived Image Quality Features on Visual Performance. *Translational Vision Science & Technology*, 9.
- BERGER, J. & HEATH, C. 2007. Where consumers diverge from others: Identity signaling and product domains. *Journal of Consumer Research*, 34, 121-134.
- BEVERLAND, M. B. & FARRELLY, F. J. 2010. The quest for authenticity in consumption: Consumers' purposive choice of authentic cues to shape experienced outcomes. *Journal of Consumer Research*, 36, 838-856.
- BHATTACHERJEE, A. & SANFORD, C. 2006. Influence Processes for Information Technology Acceptance: An Elaboration Likelihood Model. *Management Information Systems Quarterly - MISQ*, 30.
- BOAS, T. C., CHRISTENSON, D. P. & GLICK, D. M. 2020. Recruiting large online samples in the United States and India: Facebook, Mechanical Turk, and Qualtrics. *Political Science Research and Methods*, 8, 232-250.
- BYERS, R. 2023. *THE 61 CRUCIAL SOCIAL MEDIA MARKETING STATISTICS YOU NEED TO KNOW IN 2024* [Online]. Available: <https://goatagency.com/blog/social-media-marketing/social-media-marketing-statistics/> [Accessed].
- CAT, N. 2022. *Instagram users in United Kingdom* [Online]. Available: [https://napoleoncat.com/stats/instagram-users-in-united-kingdom/2022/03/#:~:text=There%20were%2034%20747%20100,group%20\(10%20700%20000\).](https://napoleoncat.com/stats/instagram-users-in-united-kingdom/2022/03/#:~:text=There%20were%2034%20747%20100,group%20(10%20700%20000).) [Accessed].
- CHAIKEN, S., LIBERMAN, A. & EAGLY, A. H. 1989. Heuristic and systematic information processing within and beyond the persuasion context. *Unintended thought*. New York, NY, US: The Guilford Press.
- CHEN, M. Y., TENG, C. I. & CHIOU, K. W. 2019. The helpfulness of online reviews Images in review content and the facial expressions of reviewers' avatars. *Online Information Review*, 44, 90-113.
- CHEONG, H. J. & MORRISON, M. A. 2008. Consumers' Reliance on Product Information and Recommendations Found in UGC. *Journal of interactive advertising*, 8, 38-49.
- CHIN, W. & MARCOULIDES, G. 1998. The Partial Least Squares Approach to Structural Equation Modeling. *Modern Methods for Business Research*, 8.
- CHIN, W. W. 1998. Commentary: Issues and opinion on structural equation modeling. JSTOR.
- CHOI, S. M. & RIFON, N. J. 2012. It Is a Match: The Impact of Congruence between Celebrity Image and Consumer Ideal Self on Endorsement Effectiveness. *Psychology & Marketing*, 29, 639-650.
- COLLIANDER, J. & MARDER, B. 2018. 'Snap happy' brands: Increasing publicity effectiveness through a snapshot aesthetic when marketing a brand on Instagram. *Computers in Human Behavior*, 78, 34-43.
- COUPER, M. P. 2000. Review: Web Surveys: A Review of Issues and Approaches. *The Public Opinion Quarterly*, 64, 464-494.
- COYLE, J. R. & THORSON, E. 2001. The effects of progressive levels of interactivity and vividness in Web marketing sites. *Journal of Advertising*, 30, 65-77.
- CRESWELL, J. W. 2008. *Research design : qualitative, quantitative, and mixed methods approaches / John W. Creswell*, Thousand Oaks, CA

London, Sage Publications.

- CRONLEY, M. L., KARDES, F., GODDARD, P. & HOUGHTON, D. C. 1999. Endorsing Products For the Money: the Role of the Correspondence Bias in Celebrity Advertising. *ACR North American Advances*.
- DAUGHERTY, T., EASTIN, M. S. & BRIGHT, L. 2008. Exploring Consumer Motivations for Creating User-Generated Content. *Journal of Interactive Advertising*, 8, 16-25.
- DE VEIRMAN, M., CAUBERGHE, V. & HUDDERS, L. 2017. Marketing through Instagram influencers: the impact of number of followers and product divergence on brand attitude. *International Journal of Advertising*, 36, 798-828.
- DENG, J., DONG, W., SOCHER, R., LI, L. J., KAI, L. & LI, F.-F. ImageNet: A large-scale hierarchical image database. 2009 IEEE Conference on Computer Vision and Pattern Recognition, 20-25 June 2009. 248-255.
- DENG, Q., HINE, M. J., JI, S. & WANG, Y. 2021. Understanding consumer engagement with brand posts on social media: The effects of post linguistic styles. *Electronic Commerce Research and Applications*, 48, 101068.
- DENZIN, N. K. & LINCOLN, Y. S. 2005. Introduction: The Discipline and Practice of Qualitative Research. *The Sage handbook of qualitative research*, 3rd ed. Thousand Oaks, CA: Sage Publications Ltd.
- DIEFENBACH, S. & CHRISTOFORAKOS, L. 2017. The Selfie Paradox: Nobody Seems to Like Them Yet Everyone Has Reasons to Take Them. An Exploration of Psychological Functions of Selfies in Self-Presentation. *Frontiers in Psychology*, 8.
- DODDS, W. B., MONROE, K. B. & GREWAL, D. 1991. EFFECTS OF PRICE, BRAND, AND STORE INFORMATION ON BUYERS PRODUCT EVALUATIONS. *Journal of Marketing Research*, 28, 307-319.
- DOS SANTOS, M. L. B. 2021. The "so-called" UGC: an updated definition of user-generated content in the age of social media. *Online Information Review*.
- DOU, X., WALDEN, J. A., LEE, S. & LEE, J. Y. 2012. Does source matter? Examining source effects in online product reviews. *Computers in Human Behavior*, 28, 1555-1563.
- DUFFY, B., SMITH, K., TERHANIAN, G. & BREMER, J. 2005. Comparing Data from Online and Face-to-face Surveys. *International Journal of Market Research*, 47, 615-639.
- EAGAR, T. & DANN, S. 2016. Classifying the narrated #selfie: genre typing human-branding activity. *European Journal of Marketing*, 50, 1835-1857.
- EASTERBY-SMITH, M., JASPERSEN, L., THORPE, R. & VALIZADE, D. 2021. *Management and business research (7th edition)*.
- ELIZABETH, S. Z., JOHN, K. & LONG, J. S. 2019. Can Nonprobability Samples be Used for Social Science Research? A cautionary tale. *Survey Research Methods*, 13.
- ERDOGAN, B. Z. 1999. Celebrity Endorsement: A Literature Review. *Journal of Marketing Management* 15, 314.
- ERKAN, I. & EVANS, C. 2016. The influence of eWOM in social media on consumers' purchase intentions: An extended approach to information adoption. *Computers in Human Behavior*, 61, 47-55.
- ESCALAS, J. E. & BETTMAN, J. R. 2003. You are what they eat: The influence of reference groups on consumers' connections to brands. *Journal of Consumer Psychology*, 13, 339-348.
- ESOMAR 2020. 28 Questions to Help Buyers of Online Samples.
- FARACE, S., VAN LAER, T., DE RUYTER, K. & WETZELS, M. 2017. Assessing the effect of narrative transportation, portrayed action, and photographic style on the likelihood to comment on posted selfies. *European Journal of Marketing*, 51, 1961-1979.

- FASTOSO, F., GONZALEZ-JIMENEZ, H. & COMETTO, T. 2021. Mirror, mirror on my phone: Drivers and consequences of selfie editing. *Journal of Business Research*, 133, 365-375.
- FEINGOLD, A. 1992. Good-Looking People Are Not What We Think. *Psychological bulletin*, 111, 304-341.
- FERRARO, R., KIRMANI, A. & MATHERLY, T. 2013. Look at Me! Look at Me! Conspicuous Brand Usage, Self-Brand Connection, and Dilution. *Journal of Marketing Research*, 50, 477-488.
- FILIERI, R., MCLEAY, F., TSUI, B. & LIN, Z. B. 2018. Consumer perceptions of information helpfulness and determinants of purchase intention in online consumer reviews of services. *Information & Management*, 55, 956-970.
- FLECK, N., KORCHIA, M. & LE ROY, I. 2012. Celebrities in Advertising: Looking for Congruence or Likability? *Psychology & Marketing*, 29, 651-662.
- FORNELL, C. & BOOKSTEIN, F. L. 1982. 2 STRUCTURAL EQUATION MODELS - LISREL AND PLS APPLIED TO CONSUMER EXIT-VOICE THEORY. *Journal of Marketing Research*, 19, 440-452.
- FORNELL, C. & LARCKER, D. F. 1981. EVALUATING STRUCTURAL EQUATION MODELS WITH UNOBSERVABLE VARIABLES AND MEASUREMENT ERROR. *Journal of Marketing Research*, 18, 39-50.
- FOX, J. & ROONEY, M. C. 2015. The Dark Triad and trait self-objectification as predictors of men's use and self-presentation behaviors on social networking sites. *Personality and individual differences*, 76, 161-165.
- FRANK, M. G., EKMAN, P. & FRIESEN, W. V. 1993. BEHAVIORAL MARKERS AND RECOGNIZABILITY OF THE SMILE OF ENJOYMENT. *Journal of Personality and Social Psychology*, 64, 83-93.
- FRIEDMAN, H. H., TERMINI, S. & WASHINGTON, R. 1976. The Effectiveness of Advertisements Utilizing Four Types of Endorsers. *Journal of Advertising*, - 5, - 24.
- FRITZ, K., SCHOENMUELLER, V. & BRUHN, M. 2017. Authenticity in branding - exploring antecedents and consequences of brand authenticity. *European Journal of Marketing*, 51, 324-348.
- GERLITZ, C. & HELMOND, A. 2013. The like economy: Social buttons and the data-intensive web. *New Media and Society*, 15, 1348-1365.
- GEURIN, A. N. & BURCH, L. M. 2017. User-generated branding via social media: An examination of six running brands. *Sport Management Review*, 20, 273-284.
- GODFREY, D. K., JONES, E. E. & LORD, C. G. 1986. Self-Promotion Is Not Ingratiating. *Journal of Personality and Social Psychology*, 50, 106- 115.
- GONG, W. Q. & LI, X. G. 2017. Engaging fans on microblog: the synthetic influence of parasocial interaction and source characteristics on celebrity endorsement. *Psychology & Marketing*, 34, 720-732.
- GRISKEVICIUS, V. & KENRICK, D. T. 2013. Fundamental motives: How evolutionary needs influence consumer behavior. *Journal of Consumer Psychology*, 23, 372-386.
- HAIR, J., SARSTEDT, M., HOPKINS, L. & KUPPELWIESER, V. 2014. Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review (Bingley)*, 26, 106-121.
- HAIR, J. F. 2017. *A primer on partial least squares structural equation modeling (PLS-SEM)*.
- HAIR, J. F., HULT, G. T. M., RINGLE, C. M. & SARSTEDT, M. 2016. *A primer on partial least squares structural equation modeling (PLS-SEM)*.
- HAIR, J. F., RINGLE, C. M. & SARSTEDT, M. 2011. PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19, 139-152.

- HAIR, J. F., RISHER, J. J., SARSTEDT, M. & RINGLE, C. M. 2019. When to use and how to report the results of PLS-SEM. *European business review*, 31, 2-24.
- HAIR, J. F., SARSTEDT, M., RINGLE, C. M. & MENA, J. A. 2012. An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40, 414-433.
- HARTMANN, J., HEITMANN, M., SCHAMP, C. & NETZER, O. 2021. The Power of Brand Selfies. *Journal of Marketing Research*, 0, 00222437211037258.
- HATFIELD, E., CACIOPPO, J. T. & RAPSON, R. L. 1993. Emotional Contagion. *Current Directions in Psychological Science*, 2, 96-100.
- HENNIG-THURAU, T., GWINNER, K. P., WALSH, G. & GREMLER, D. D. 2004. Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of interactive marketing*, 18, 38-52.
- HENNIG-THURAU, T. & WALSH, G. 2003. Electronic word-of-mouth: Motives for and consequences of reading customer articulations on the Internet. *International Journal of Electronic Commerce*, 8, 51-74.
- HENNIG-THURAU, T., WIERTZ, C. & FELDHAUS, F. 2015. Does Twitter matter? The impact of microblogging word of mouth on consumers' adoption of new movies. *Journal of the Academy of Marketing Science*, 43, 375-394.
- HENSELER, J., DIJKSTRA, T. K., SARSTEDT, M., RINGLE, C. M., DIAMANTOPOULOS, A., STRAUB, D. W., KETCHEN, D. J., HAIR, J. F., HULT, G. T. M. & CALANTONE, R. J. 2014. Common Beliefs and Reality About PLS: Comments on Ronnkko and Evermann (2013). *Organizational Research Methods*, 17, 182-209.
- HENSELER, J., RINGLE, C. & SINKOVICS, R. 2009. The Use of Partial Least Squares Path Modeling in International Marketing.
- HERR, P. M., KARDES, F. R. & KIM, J. 1991. Effects of word-of-mouth and product-attribute information on persuasion: An accessibility-diagnostics perspective. *Journal of Consumer Research*, 17, 454-462.
- HEW, J. J., LEONG, L. Y., TAN, G. W. H., LEE, V. H. & OOI, K. B. 2018. Mobile social tourism shopping: A dual-stage analysis of a multi mediation model. *Tourism Management*, 66, 121-139.
- HIRSCHMAN, E. C. & HOLBROOK, M. B. 1982. Hedonic Consumption: Emerging Concepts, Methods and Propositions. *Journal of Marketing*, 46, 92-101.
- HO, J. Y. C. & DEMPSEY, M. 2010. Viral marketing: Motivations to forward online content. *Journal of Business Research*, 63, 1000-1006.
- HOMER, P. M. & KAHLE, L. R. 1986. A SOCIAL ADAPTATION EXPLANATION OF THE EFFECTS OF SURREALISM ON ADVERTISING. *Journal of Advertising*, 15, 50-&.
- HORTON, D. & RICHARD WOHL, R. 1956. Mass communication and para-social interaction; observations on intimacy at a distance. *Psychiatry*, - 19, - 229.
- HOVLAND, C. I., JANIS, I. L. & KELLEY, H. H. 1953. *Communication and persuasion; psychological studies of opinion change*, New Haven, CT, US, Yale University Press.
- HU, M., CHEN, J., CHEN, Q. & HE, W. 2020. It pays off to be authentic: An examination of direct versus indirect brand mentions on social media. *Journal of Business Research*, 117, 19-28.
- ILICIC, J., BAXTER, S. & KULCZYNSKI, A. 2015. Names versus faces: examining spokesperson-based congruency effects in advertising. *European Journal of Marketing*, 49, 62-81.



- ILICIC, J., BAXTER, S. M. & KULCZYNSKI, A. 2016. White eyes are the window to the pure soul: Metaphorical association and overgeneralization effects for spokespeople with limbal rings. *International Journal of Research in Marketing*, 33, 840-855.
- ILICIC, J., BAXTER, S. M. & KULCZYNSKI, A. 2018. Spot the difference: examining facial characteristics that enhance spokesperson effectiveness. *European Journal of Marketing*, 52, 348-366.
- ILICIC, J. & BRENNAN, S. M. 2020. Looking at you: celebrity direct eye gaze influences social media post effectiveness. *European Journal of Marketing*.
- ILICIC, J. & WEBSTER, C. M. 2016. Being True to Oneself: Investigating Celebrity Brand Authenticity. *Psychology & Marketing*, 33, 410-420.
- IYER, T. J., RAHUL, K., NERSSON, R., ZHUANG, Z., JOSEPH RAJ, A. N. & REFAYEE, I. 2021. Machine Learning-Based Facial Beauty Prediction and Analysis of Frontal Facial Images Using Facial Landmarks and Traditional Image Descriptors. *Computational Intelligence and Neuroscience*, 2021.
- JIN, S. A. A. & PHUA, J. 2014. Following Celebrities' Tweets About Brands: The Impact of Twitter-Based Electronic Word-of-Mouth on Consumers' Source Credibility Perception, Buying Intention, and Social Identification With Celebrities. *Journal of Advertising*, 43, 181-195.
- JIN, S. V. 2018. "Celebrity 2.0 and beyond!" Effects of Facebook profile sources on social networking advertising. *Computers in Human Behavior*, 79, 154-168.
- JIN, S. V. & RYU, E. 2020. "Will you buy what she's wearing?": The roles of envy toward and parasocial interaction with influencers in Instagram celebrity -based brand endorsement and social commerce. *Journal of Retailing and Consumer Services*, 55.
- JOHNSON, J. 2020. *UK: Instagram users by age 2019* [Online]. Available: <https://www.statista.com/statistics/1018012/instagram-users-united-kingdom/> [Accessed].
- JUN, S. & YI, J. 2020. What makes followers loyal? The role of influencer interactivity in building influencer brand equity. *Journal of Product and Brand Management*, 29, 803-814.
- KAMINS, M. A. 1990. AN INVESTIGATION INTO THE MATCH-UP HYPOTHESIS IN CELEBRITY ADVERTISING - WHEN BEAUTY MAY BE ONLY SKIN DEEP. *Journal of Advertising*, 19, 4-13.
- KAMINS, M. A. & GUPTA, K. 1994. CONGRUENCE BETWEEN SPOKESPERSON AND PRODUCT TYPE - A MATCHUP HYPOTHESIS PERSPECTIVE. *Psychology & Marketing*, 11, 569-586.
- KANG, J. 2020. The Effect of Ad Skepticism and Celebrity Preference on Brand Attitude Change in Celebrity-Endorsed Advertising. *Japanese Psychological Research*, 62, 26-38.
- KAPITAN, S. & SILVERA, D. H. 2016. From digital media influencers to celebrity endorsers: attributions drive endorser effectiveness. *Marketing Letters*, 27, 553-567.
- KAPITAN, S., VAN ESCH, P., SOMA, V. & KIETZMANN, J. 2022. Influencer Marketing and Authenticity in Content Creation. *Australasian Marketing Journal*, 30, 342-351.
- KELLEY, H. H. 1973. PROCESSES OF CAUSAL ATTRIBUTION. *American Psychologist*, 28, 107-128.
- KELMAN, H. C. 1961a. PROCESSES OF OPINION CHANGE. *Public Opinion Quarterly*, 25, 57-78.
- KELMAN, H. C. 1961b. PROCESSES OF OPINION CHANGE. *Public Opinion Quarterly*, 25, 57-78.

- KIM, A. J. & JOHNSON, K. K. P. 2016. Power of consumers using social media: Examining the influences of brand-related user-generated content on Facebook. *Comput. Hum. Behav.*, 58, 98-108.
- KIM, D. & JANG, S. 2017. Symbolic Consumption in Upscale Cafés: Examining Korean Gen Y Consumers' Materialism, Conformity, Conspicuous Tendencies, and Functional Qualities. *Journal of hospitality & tourism research (Washington, D.C.)*, 41, 154-179.
- KIM, H. R., KIM, Y. S., KIM, S. J. & LEE, I. K. 2018. Building emotional machines: Recognizing image emotions through deep neural networks. *IEEE Transactions on Multimedia*, 20, 2980-2992.
- KIM, M. & LEE, M. 2017. Brand-related user-generated content on social media: the roles of source and sponsorship. *Internet Research*, 27, 1085-1103.
- KIM, M. & SONG, D. 2018. When brand-related UGC induces effectiveness on social media: the role of content sponsorship and content type. *International Journal of Advertising*, 37, 105-124.
- KITIRATTARKARN, G. P., ARAUJO, T. & NEIJENS, P. 2019. Challenging Traditional Culture? How Personal and National Collectivism-Individualism Moderates the Effects of Content Characteristics and Social Relationships on Consumer Engagement with Brand-Related User-Generated Content. *Journal of Advertising*, 48, 197-214.
- KNOLL, J. & MATTHES, J. 2017. The effectiveness of celebrity endorsements: a meta-analysis. *Journal of the Academy of Marketing Science*, 45, 55-75.
- KOWALCZYK, C. M. & POUNDERS, K. R. 2016. Transforming celebrities through social media: the role of authenticity and emotional attachment. *Journal of Product and Brand Management*, 25, 345-356.
- KRUMHUBER, E., MANSTEAD, A. S. R., COSKER, D., MARSHALL, D., ROSIN, P. L. & KAPPAS, A. 2007. Facial dynamics as indicators of trustworthiness and cooperative Behavior. *Emotion*, 7, 730-735.
- KRUMHUBER, E. G., HYNIEWSKA, S. & ORLOWSKA, A. 2021. Contextual effects on smile perception and recognition memory. *Current psychology (New Brunswick, N.J.)*.
- KUJUR, F. & SINGH, S. 2016. Engaging customers through online participation in social networking sites. *Asia Pacific Management Review*, 22.
- KULCZYNSKI, A., ILICIC, J. & BAXTER, S. M. 2016. When Your Source Is Smiling, Consumers May Automatically Smile with You: Investigating the Source Expressive Display Hypothesis. *Psychology & marketing*, 33, 5-19.
- KUNG, F. Y. H., KWOK, N. & BROWN, D. J. 2018. Are Attention Check Questions a Threat to Scale Validity? *Applied Psychology-an International Review-Psychologie Appliquee-Revue Internationale*, 67, 264-283.
- KUSUMASONDJAJA, S. & TJIPTONO, F. 2019. Endorsement and visual complexity in food advertising on Instagram. *Internet Research*, 29, 659-687.
- LAESTADIUS, L. 2016. *The SAGE Handbook of Social Media Research Methods*.
- LAPASA, W. 2017. *Puma is making moves and using Influencer Marketing to compete* [Online]. Available: <https://waynelapasa.com/puma-influencer-marketing/#:~:text=For%20this%20concentrated%20target%20audience,setting%20and%20fashion%20conscious%20customer.> [Accessed].
- LAROS, F. J. M. & STEENKAMP, J. 2005. Emotions in consumer behavior: a hierarchical approach. *Journal of Business Research*, 58, 1437-1445.
- LAU, S. 1982. The Effect of Smiling on Person Perception. *The Journal of Social Psychology*, 117, 63-67.

- LEE, E.-J., LEE, H.-Y. & CHOI, S. 2020. Is the message the medium? How politicians' Twitter blunders affect perceived authenticity of Twitter communication. *Computers in Human Behavior*, 104.
- LI, N. & LIU, N. 2021. The Nonlinear and Gender-Related Relationships of Face Attractiveness and Typicality With Perceived Trustworthiness. *Frontiers in Psychology*, 12.
- LINDELL, M. K. & WHITNEY, D. J. 2001. Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86, 114-121.
- LITVIN, S., GOLDSMITH, R. & PAN, B. 2008. Electronic Word-of-Mouth in Hospitality and Tourism Management. *Tourism Management*, 29, 458-468.
- LIU, L., DZYABURA, D. & MIZIK, N. 2019. Visual Listening In: Extracting Brand Image Portrayed on Social Media
- LIU, X. 2018. Exploring the Impact of Brand Selfie on Brand Attitude in the Twittersphere: An Abstract. *Back to the Future: Using Marketing Basics to Provide Customer Value*.
- LIU, X. & FOREMAN, J. 2019. exploring the impact of brand selfie on brand attitude in the twittersphere. *International Journal of Internet Marketing and Advertising*, - 13, - 337.
- LIU, Z. W. & PARK, S. 2015. What makes a useful online review? Implication for travel product websites. *Tourism Management*, 47, 140-151.
- LU, L.-C., CHANG, W.-P. & CHANG, H.-H. 2014. Consumer attitudes toward blogger's sponsored recommendations and purchase intention: The effect of sponsorship type, product type, and brand awareness. *Computers in Human Behavior*, 34, 258-266.
- MACKENZIE, S. & LUTZ, R. 1989. An Empirical Examination of the Structural Antecedents of Attitude Toward the Ad in an Advertising Pretesting Context. *Journal of Marketing*, 53, 48.
- MACKENZIE, S., LUTZ, R. & BELCH, G. 1986. The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations. *Journal of Marketing Research*, 23, 130-143.
- MAHONEY, D. 2021. *Survey Finds People Are Creating the Content They Want to See on E-Commerce Sites* [Online]. TotalRetail. Available: <https://www.mytotalretail.com/article/survey-finds-people-are-creating-the-content-they-want-to-see-on-e-commerce-sites/> [Accessed].
- MALAR, L., KROHMER, H., HOYER, W. D. & NYFFENEGGER, B. 2011. Emotional Brand Attachment and Brand Personality: The Relative Importance of the Actual and the Ideal Self. *Journal of Marketing*, 75, 35-52.
- MALHOTRA, N. K. 2006. *Marketing Research*.
- MATLEY, D. 2018. "This is NOT a #humblebrag, this is just a #brag": The pragmatics of self-praise, hashtags and politeness in Instagram posts. *Discourse Context & Media*, 22, 30-38.
- MAYRHOFER, M., MATTHES, J., EINWILLER, S. & NADERER, B. 2020. User generated content presenting brands on social media increases young adults' purchase intention. *International Journal of Advertising*, 39, 166-186.
- MAZLOOM, M., RIETVELD, B., RUDINAC, S., WORRING, M. & DOLEN, W. 2016. *Multimodal Popularity Prediction of Brand-related Social Media Posts*.
- MCCRACKEN, G. 1989. Who is the Celebrity Endorser? Cultural Foundations of the Endorsement Process. *Journal of Consumer Research*, 16, 310-321.
- MCFERRAN, B., AQUINO, K. & TRACY, J. L. 2014. Evidence for two facets of pride in consumption: Findings from luxury brands. *Journal of Consumer Psychology*, 24, 455-471.

- MITCHELL, A. A. & OLSON, J. C. 1981. Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude? *Journal of marketing research*, 18, 318.
- MOHSIN, M. 2019. *10 Instagram Stats Every Marketer Should Know in 2019 [Infographic]* [Online]. Available: <https://www.oberlo.co.uk/blog/instagram-stats-every-marketer-should-know> [Accessed].
- MORHART, F., MALAR, L., GUEVREMONT, A., GIRARDIN, F. & GROHMANN, B. 2015. Brand authenticity: An integrative framework and measurement scale. *Journal of Consumer Psychology*, 25, 200-218.
- MOSLEY, D. V., ABREU, R. L., RUDERMAN, A. & CROWELL, C. 2017. Hashtags and hip-hop: exploring the online performances of hip-hop identified youth using Instagram. *Feminist Media Studies*, 17, 135-152.
- MOULARD, J. G., GARRITY, C. P. & RICE, D. H. 2015. What Makes a Human Brand Authentic? Identifying the Antecedents of Celebrity Authenticity. *Psychology & Marketing*, 32, 173-186.
- MÜLLER, J. & CHRISTANDL, F. 2019. Content is king – But who is the king of kings? The effect of content marketing, sponsored content & user-generated content on brand responses. *Computers in human behavior*, 96, 46-55.
- MUNNUKKA, J., MAITY, D., REINIKAINEN, H. & LUOMA-AHO, V. 2019. "Thanks for watching". The effectiveness of YouTube vlogendorsements. *Computers in Human Behavior*, 93, 226-234.
- MUNNUKKA, J., UUSITALO, O. & TOIVONEN, H. 2016. Credibility of a peer endorser and advertising effectiveness. *Journal of Consumer Marketing*, 33, 182-192.
- NANNE, A. J., ANTHEUNIS, M. L. & VAN NOORT, G. 2021. The role of facial expression and tie strength in sender presence effects on consumers' brand responses towards visual brand-related user generated content. *Computers in Human Behavior*, 117.
- NAPOLI, J., DICKINSON, S. J., BEVERLAND, M. B. & FARRELLY, F. 2014. Measuring consumer-based brand authenticity. *Journal of Business Research*, 67, 1090-1098.
- NASR, N. 2022. *Facebook essential figures in 2022 in the UK and in the World* [Online]. Available: <https://blog.digimind.com/en/agencies/facebook-uk-essential-figures#:~:text=Women%20aged%20to%2034,13%20to%2017%20years%20old>. [Accessed].
- NITZL, C., ROLDÁN, J. & CEPEDA-CARRION, G. 2016. Mediation Analysis in Partial Least Squares Path Modeling: Helping Researchers Discuss More Sophisticated Models. *Industrial Management & Data Systems*, 116, 1849-1864.
- NUNES, J. C., ORDANINI, A. & GIAMBASTIANI, G. 2021. The Concept of Authenticity: What It Means to Consumers. *Journal of Marketing*, 85, 1-20.
- OHANIAN, R. 1990. CONSTRUCTION AND VALIDATION OF A SCALE TO MEASURE CELEBRITY ENDORSERS PERCEIVED EXPERTISE, TRUSTWORTHINESS, AND ATTRACTIVENESS. *Journal of Advertising*, 19, 39-52.
- OXFORD. 2022. *Oxford English Dictionary: selfie* [Online]. Available: <https://www.oed.com/view/Entry/390063?redirectedFrom=selfie> [Accessed].
- PARK, C. W., MACINNIS, D. J., PRIESTER, J., EISINGERICH, A. B. & LACOBUCCI, D. 2010. Brand Attachment and Brand Attitude Strength: Conceptual and Empirical Differentiation of Two Critical Brand Equity Drivers. *Journal of Marketing*, 74, 1-17.
- PARK, J., KIM, J., LEE, D. C., KIM, S. S., VOYER, B. G., KIM, C., SUNG, B., GONZALEZ-JIMENEZ, H., FASTOSO, F., CHOI, Y. K. & YOON, S. 2021. The impact of COVID-19 on consumer evaluation of authentic advertising messages. *Psychology & marketing*, 10.1002/mar.21574.

- PETTY, R. E. & CACIOPPO, J. T. 1986. The Elaboration Likelihood Model of Persuasion. In: BERKOWITZ, L. (ed.) *Advances in Experimental Social Psychology*. Academic Press.
- PETTY, R. E., CACIOPPO, J. T. & SCHUMANN, D. 1983. CENTRAL AND PERIPHERAL ROUTES TO ADVERTISING EFFECTIVENESS - THE MODERATING ROLE OF INVOLVEMENT. *Journal of Consumer Research*, 10, 135-146.
- PHUA, J. 2016. The effects of similarity, parasocial identification, and source credibility in obesity public service announcements on diet and exercise self-efficacy. *Journal of Health Psychology*, 21, 699-708.
- PODSAKOFF, P. M., MACKENZIE, S. B., LEE, J. Y. & PODSAKOFF, N. P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- PONTEROTTO, J. G. 2005. Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, 52, 126-136.
- POUNDERS, K., KOWALCZYK, C. M. & STOWERS, K. 2016. Insight into the motivation of selfie postings: impression management and self-esteem. *European Journal of Marketing*, 50, 1879-1892.
- PRESI, C., MAEHLE, N. & KLEPPE, I. A. 2016. Brand selfies: consumer experiences and marketplace conversations. *European Journal of Marketing*, 50, 1814-1834.
- PRIESTER, J. R. & PETTY, R. E. 2003. The Influence of Spokesperson Trustworthiness on Message Elaboration, Attitude Strength, and Advertising Effectiveness. *Journal of Consumer Psychology*, 13, 408-421.
- QUALTRICS. 2020. *Unlock breakthrough insights with market research panels* [Online]. Available: <https://www.qualtrics.com/uk/research-services/online-sample/> [Accessed].
- RAHMAN, M. S. & MANNAN, M. 2018. Consumer online purchase behavior of local fashion clothing brands: Information adoption, e-WOM, online brand familiarity and online brand experience. *Journal of Fashion Marketing and Management*, 22, 404-419.
- RINDFLEISCH, A., BURROUGHS, J. E. & WONG, N. 2009. The Safety of Objects: Materialism, Existential Insecurity, and Brand Connection. *Journal of Consumer Research*, 36, 1-16.
- ROKKA, J. & CANNIFORD, R. 2016. Heterotopian selfies: how social media destabilizes brand assemblages. *European Journal of Marketing*, 50, 1789-1813.
- ROMA, P. & ALOINI, D. 2019. How does brand-related user-generated content differ across social media? Evidence reloaded. *Journal of Business Research*, 96, 322-339.
- ROSARIO, A. B., SOTGIU, F., DE VALCK, K. & BIJMOLT, T. H. A. 2016. The Effect of Electronic Word of Mouth on Sales: A Meta-Analytic Review of Platform, Product, and Metric Factors. *Journal of Marketing Research*, 53, 297-318.
- RYAN, R. M. & DECI, E. L. 2002. Overview of self-determination theory: An organismic-dialectical perspective. *Handbook of self-determination research*. Rochester, NY, US: University of Rochester Press.
- SCHIMMELPFENNIG, C. 2018. Who is the Celebrity Endorser? A Content Analysis of Celebrity Endorsements. *Journal of International Consumer Marketing*, 30, 1-15.
- SCHIMMELPFENNIG, C. & HUNT, J. B. 2020. Fifty years of celebrity endorser research: Support for a comprehensive celebrity endorsement strategy framework. *Psychology & Marketing*, 37, 488-505.
- SCHIVINSKI, B., CHRISTODOULIDES, G. & DABROWSKI, D. 2016. Measuring Consumers' Engagement With Brand-Related Social-Media Content Development and Validation of a Scale That Identifies Levels of Social-Media Engagement with Brands. *Journal of Advertising Research*, 56, 64-80.

- SEKHON, T., BICKART, B., TRUDEL, R. & FOURNIER, S. 2015. *Being a likable braggart: How consumers use brand mentions for self-presentation on social media.*
- SHAN, Y., CHEN, K. J. & LIN, J. S. 2019. When social media influencers endorse brands: the effects of self-influencer congruence, parasocial identification, and perceived endorser motive. *International Journal of Advertising.*
- SHELDON, K. M., GOFFREDI, R. & CORCORAN, M. 2021. The Glow Still Shows: Effects of Facial Masking on Perceptions of Duchenne Versus Social Smiles. *Perception (London)*, 30100662110270-3010066211027052.
- SHEPHERD, J. 2023. *22 Essential Twitter Statistics You Need to Know in 2023* [Online]. Available: <https://thesocialshepherd.com/blog/twitter-statistics#:~:text=Here's%20an%20overview%20of%20Twitter's,year%20olds%3A%2038.5%25%20of%20users> [Accessed].
- SIEMENS, J. C., SMITH, S., FISHER, D. & JENSEN, T. D. 2008. Product expertise versus professional expertise: Congruency between an endorser's chosen profession and the endorsed product. *Journal of Targeting, Measurement and Analysis for Marketing*, 16, 159-168.
- SINGH, R. P. & BANERJEE, N. 2018. Exploring the Influence of Celebrity Credibility on Brand Attitude, Advertisement Attitude and Purchase Intention. *Global Business Review*, 19, 1622-1639.
- SMITH, A. N., FISCHER, E. & CHEN, Y. J. 2012. How Does Brand-related User-generated Content Differ across YouTube, Facebook, and Twitter? *Journal of Interactive Marketing*, 26, 102-113.
- SMITH, A. N. & PYLE, M. A. 2015. A video is worth 1,000 words: Linking consumer value for opinion seekers to visually oriented eWOM practices.
- SODERGREN, J. 2021. Brand authenticity: 25 Years of research. *International Journal of Consumer Studies*, 45, 645-663.
- SOLOMON, M. R. 2010. *Consumer Behaviour: A European Perspective*, Prentice Hall/Financial Times.
- SOPER, D. 2020. *A-priori Sample Size Calculator for Multiple Regression [Software]*. [Online]. Available: <https://www.danielsoper.com/statcalc> [Accessed].
- SORUM, K. A., GRAPE, K. M. & SILVERA, D. 2003. Do dispositional attributions regarding peer endorsers influence product evaluations? *Scandinavian Journal of Psychology*, 44, 39-46.
- SPARKS, B. A. & BROWNING, V. 2011. The impact of online reviews on hotel booking intentions and perception of trust. *Tourism Management*, 32, 1310-1323.
- STARBUCKS. 2016. *Starbucks Invites Customers to Create Red Cup Art* [Online]. Available: <https://stories.starbucks.com/stories/2016/starbucks-invites-customers-to-create-red-cup-art/> [Accessed].
- STATISTA. 2019a. *Leading sports shoes & trainers in Great Britain 2018* [Online]. Available: <https://www.statista.com/statistics/312998/leading-brands-of-sports-shoes-and-trainers-in-the-uk/>. [Accessed].
- STATISTA. 2019b. *Number of stores owned by the largest coffee shop chains in the United Kingdom (UK) as of January 2019* [Online]. Available: <https://www.statista.com/statistics/1034862/leading-three-coffee-chains-uk/> [Accessed].
- STATISTA. 2021a. *Distribution of Instagram users in the United Kingdom (UK) as of February 2021, by age group* [Online]. Available: <https://www.statista.com/statistics/1018012/instagram-users-united-kingdom/#:~:text=UK%3A%20Instagram%20users%202021%2C%20by%20age%20>

- group&text=In%20February%202021%2C%20Instagram%20had,to%2024%20years%20old%20category. [Accessed].
- STATISTA. 2021b. *Instagram usage in the United Kingdom in the 1st quarter 2021, by age and gender* [Online]. Available: <https://www.statista.com/statistics/536697/instagram-usage-in-uk-by-age-and-gender/> [Accessed].
- STATISTA. 2022. *Distribution of Instagram users in the United Kingdom (UK) as of September 2022, by gender* [Online]. Available: <https://www.statista.com/statistics/1315723/uk-instagram-users-by-gender/#:~:text=UK%3A%20Instagram%20audience%202022%2C%20by%20gender&text=In%20September%202022%2C%20women%20made,were%20aware%20of%20Meta's%20Instagram.> [Accessed].
- SUNG, Y., KIM, E. & CHOI, S. M. 2018. #Me and brands: understanding brand-selfie posters on social media. *International Journal of Advertising*, 37, 14-28.
- TABER, K. S. 2018. The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48, 1273-1296.
- TAJFEL, H., TURNER, J. C., AUSTIN, W. G. & WORCHEL, S. 1979. An integrative theory of intergroup conflict. *Organizational identity: A reader*, 56, 9780203505984-16.
- TEHSEEN, S., RAMAYAH, T. & SAJILAN, S. 2017. Testing and Controlling for Common Method Variance: A Review of Available Methods. *Journal of Management Sciences*, 4, 142-168.
- TEO, L. X., LENG, H. K. & PHUA, Y. X. P. 2019. Marketing on Instagram Social influence and image quality on perception of quality and purchase intention. *International Journal of Sports Marketing & Sponsorship*, 20, 321-332.
- THINKMARKETING. 2017. *Coca Cola ends summer with new "Selfie Bottle"* [Online]. Available: <https://thinkmarketingmagazine.com/coca-cola-ends-summer-new-selfie-bottle/> [Accessed].
- THOMAS, V. L. & FOWLER, K. 2023. Examining the outcomes of influencer activism. *Journal of Business Research*, 154.
- THOMPSON, D. V. & MALAVIYA, P. 2013. Consumer-Generated Ads: Does Awareness of Advertising Co-Creation Help or Hurt Persuasion? *Journal of Marketing*, 77, 33-47.
- TILL, B. D. & BUSLER, M. 2000. The match-up hypothesis: Physical attractiveness, expertise, and the role of fit on brand attitude, purchase intent and brand beliefs. *Journal of Advertising*, 29, 1-13.
- TINT. 2021. *The Big List of User-Generated Content Stats (2021)* [Online]. Available: <https://www.tintup.com/blog/user-generated-content-stats-2021/> [Accessed].
- TORRES, P., AUGUSTO, M. & MATOS, M. 2019. Antecedents and outcomes of digital influencer endorsement: An exploratory study. *Psychology & Marketing*, 36, 1267-1276.
- TRIVEDI, R. H. & TEICHERT, T. 2019. The effect of ad smiles on consumer attitudes and intentions: Influence of model gender and consumer gender. *Journal of Business Research*, 99, 197-205.
- TURNER, J. C., BROWN, R. J. & TAJFEL, H. 1979. SOCIAL-COMPARISON AND GROUP INTEREST IN INGROUP FAVORITISM. *European Journal of Social Psychology*, 9, 187-204.
- VOORVELD, H. A. M., VAN NOORT, G., MUNTINGA, D. G. & BRONNER, F. 2018. Engagement with Social Media and Social Media Advertising: The Differentiating Role of Platform Type. *Journal of Advertising*, 47, 38-54.

- WANG, R. X., YANG, F. & HAIGH, M. M. 2017. Let me take a selfie: Exploring the psychological effects of posting and viewing selfies and groupies on social media. *Telematics and Informatics*, 34, 274-283.
- WANG, Z. 2021. Social media brand posts and customer engagement. *Journal of Brand Management*, 28.
- WEATHERS, D., SWAIN, S. D. & GROVER, V. 2015. Can online product reviews be more helpful? Examining characteristics of information content by product type. *Decision Support Systems*, 79, 12-23.
- WEI, P. S. & LU, H. P. 2013. An examination of the celebrity endorsements and online customer reviews influence female consumers' shopping behavior. *Computers in Human Behavior*, 29, 193-201.
- WHITE, K. & DAHL, D. W. 2007. Are all out-groups created equal? Consumer identity and dissociative influence. *Journal of Consumer Research*, 34, 525-536.
- XIAO, L. & DING, M. 2014. Just the Faces: Exploring the Effects of Facial Features in Print Advertising. *Marketing Science*, 33, 338-352.
- XU, Q. 2014. Should I trust him? The effects of reviewer pro-file characteristics on eWOM credibility. *Computers in Human Behavior*, 33, 136-144.
- YU, J. & KO, E. 2021. UGC attributes and effects: implication for luxury brand advertising. *International Journal of Advertising*, 40, 945-967.
- ZAFAR, A. U., QIU, J. N., LI, Y., WANG, J. G. & SHAHZAD, M. 2021. The impact of social media celebrities' posts and contextual interactions on impulse buying in social commerce. *Computers in Human Behavior*, 115.
- ZEBROWITZ, L. A. & MONTEPARE, J. M. 2008. Social Psychological Face Perception: Why Appearance Matters. *Social and personality psychology compass*, 2, 1497-1497.
- ZHAO, X. S., LYNCH, J. G. & CHEN, Q. M. 2010. Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, 37, 197-206.