

## **Consumer brand post engagement on Facebook and Instagram – A study of three interior design brands**

*(Full paper)*

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### **ABSTRACT**

Social media has become an important part of consumers' brand interaction. This study takes a content analysis research approach in order to investigate the content type of three interior brands' postings on two popular social media sites, Facebook and Instagram, and explore how consumers engage with the content. The results show that slightly different content strategies are used on Facebook and Instagram, and the level of consumer brand post engagement varies between the two platforms. Instagram showed clearly a higher consumer brand post engagement compared to Facebook. Brand post engagement on the two social media sites is enhanced by entertaining and inspirational content. Especially on Instagram, inspirational content created the highest brand engagement. The findings are important for brands that strive to engage with fans on social media sites. Managerial and practical implications are discussed, together with future research.

*Keywords:* Social media, consumer engagement, online marketing, Internet research, social networks.

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### **INTRODUCTION**

Social media marketing enhances customer engagement, creates brand awareness, allows for more targeted acquisitions of new customers and enhances promotions of products (Tsimonis & Dimitriadis, 2017; Sharma, Alavi & Ahujaa, 2017). Many brands have adopted social media to interact with their customers (He, Zha & Li, 2014). According to Tsimonis and Dimitriadis (2017), companies' activity in social media is primarily motivated by increased use by consumers, that competitors are present in social media, possible cost reductions in marketing activities, and that social media is part of companies' headquarter strategy. Many social media users want to, and do, follow brands on social media (Sprout Social Index, 2016). Virtual communities are also good places for passionate brand fans to meet (Hsu, 2019). However, following a brand does not directly correlate with brand engagement. Different types of brand messages generate different levels of consumer engagement in social media (De Vries, Gensler & Leeftang, 2012; Tafesse, 2015; Ge & Grezel, 2017). Little research has been conducted to investigate the challenge for companies to attract people's attention to brand posts and persuade them to engage with the content (Luarn, Lin & Chiu, 2015). There is, nevertheless, a growing research base on what type of posts drive consumers' engagement towards brands in social media (e.g. De Vries, Gensler & Leeftang, 2012; Tafesse, 2015; Ge & Grezel, 2017; Gutiérrez-Cillán, Camarero-Izquierdo & San José-Cabezudo, 2017; Menon *et al.*, 2019). Analyzing brand interaction in online communities from a consumer engagement perspective is interesting also from theoretical perspectives of consumer behavior and co-creative communities (Brodie *et al.*, 2013). Moreover, scientific research regarding consumers' brand post engagement on social media sites often seems to focus on Facebook fan pages (De Vries, Gensler & Leeftang, 2012; Tafesse, 2015; Ge & Grezel, 2017; Gutiérrez-Cillán, Camarero-Izquierdo & San José-Cabezudo, 2017; Luarn, Lin & Chiu, 2015; Schultz, 2017). However, companies have a need to monitor and analyze content on different social media sites (He, Zha & Li, 2014). Different social media sites have different posting features and possibilities for fans to engage with the brand (Virtanen, Björk & Sjöström, 2017). Likewise, different consumer engagement metrics are used on different social media sites (Coelho, de Oliveira & de Almeida, 2016). Hence, this study will focus on analyzing brand posts on two popular social media sites, namely Facebook and Instagram. Facebook is the most popular social network worldwide with 2234 million active users in October 2018 (Statista, 2018). Instagram had 1000 million active users at the same time period (Statista, 2018) and is gaining in popularity in the US, the UK and the Nordics (AudienceProject, 2017). Both platforms are actively used by consumers to follow brands online (AudienceProject, 2017).

According to previous studies there are several types of variables that impact consumer brand post engagement on social media sites. Cvijikj and Michahelles (2013) proposed posting time, media type and content type to effect Facebook engagement. Swani *et al.* (2017) suggested brand cue, message appeal, selling strategy, information search, company fan base and message time as impact factors on social media likes and comments. Ge and Grezel (2017) focused on humor in the posting message, along with message complexity and product focus. Tafesse (2015) in turn analyzed brand post vividness, interactivity, novelty, consistency and content types, and controlled the audience engagement with fan base, product category and posting date. In other words, there is an extensive number of variables that can explain brand post engagement of social media sites. In this

study the focus will be on content type. The argument for this decision is that content type has been found as an important driver for brand post engagement in previous studies (Ashley & Tuten, 2015; Tafesse, 2015; Coelho, de Oliveira & de Almeida, 2016; Schultz, 2017; Cvijikj & Michahelles, 2013; Kim, Spiller & Hettche, 2015).

The main objective in this study is to take an explorative consumer engagement approach to analyze three interior design brands' postings on Facebook and Instagram. Within interior design social media is actively used for marketing communications and the preferred social media sites for interior designers are Facebook and Instagram (Unity Marketing, 2018). Hence, interior design is an interesting branch to study for the purpose of this study. We conduct content analysis to identify the characteristic of the content that the three brands are posting on the two social media sites, and investigate differences in consumer brand post engagement regarding these postings. Knowledge about this topic contributes to the theoretical discussion on consumer engagement and to brands who seek to improve consumer interactions by using social media.

We will first conduct a literature review where the focus is on consumer engagement, metrics for measuring engagement and different content types in social media postings. Thereafter, we present the method, which includes the data collection, sample and variable operationalization and coding. Results are presented and discussed. Finally, we conclude with a summary of the study's contributions and directions for future research.

## LITERATURE

### Brand Post Engagement And Metrics

There are different theoretical perspectives to analyze engagement in social media, namely online advertising, brand community and uses and gratification theory (Tafesse, 2015). This study is based on literature regarding consumer engagement. The engagement concept has become increasingly used in marketing literature within the area of consumer behavior and co-creative communities (Brodie *et al.*, 2013). The conceptual roots of consumer engagement are derived from theory regarding interactive experience and value co-creation within relationship marketing and service-dominant logic (Brodie *et al.*, 2011). Social networks have changed the dynamics of marketing interchange between companies and consumers and in this new non-transactional environment the focus has shifted from transactions towards consumer engagement and participation (Cvijikj & Michahelles, 2013). Consumer engagement in a virtual brand community is dynamic and multidimensional in character, where engaged consumers display increased loyalty, satisfaction, empowerment, connection, emotional bonding, trust and commitment towards the brand (Brodie *et al.*, 2013). Hollebeek *et al.* (2014) propose that consumer brand engagement consists of three dimensions; (1) generic cognitive, (2) emotional and (3) behavioral. The cognitive dimension is defined as "a consumer's level of brand-related thought processing and elaboration in a particular consumer/brand interaction". The emotional dimension refers to "a consumer's degree of positive brand related affect in a particular consumer/brand interaction". The behavioral dimension is defined as "a consumer's level of energy, effort and time spent on a brand in a particular consumer/brand interaction". These dimensions, according to the authors, describe consumers' activities in brand interactions.

In this study we monitor the behavioral outcomes of consumer engagement with brand posts in social media. A similar approach to investigate consumer engagement on social media was used by Schultz (2017). On social media fans can interact with brand posts by pressing e.g. like, commenting on them or sharing them (Luarn, Lin & Chiu, 2015). The fan engagement levels on Facebook have been described as a pyramid where Like is at the bottom (the mildest level of engagement), Reaction is a form of emotion icons (e.g. Love, Sad), Commenting goes beyond Liking in engagement with a brand, sharing indicates trust towards a brand and on the top of the pyramid create represents Involvement, which goes beyond engagement (co-creation of content) (Sharma, Alavi & Ahujaa, 2017). Consumers' online brand-related activities have also been described as a path to gradual involvement with brands on social media; the first step is consumption (e.g. viewing and reading branded content), the second step is contributing (e.g. commenting on brand related content) and the third step is creating (e.g. uploading brand related content) (Muntinga, Moorman & Smit, 2011). Hence, it seems clear that consumer brand post engagement has different levels of involvement, which should be considered when selecting a measurement model or formula for measuring brand engagement. Consumer engagement also occurs within a specific situational context that generates different levels of engagement (Brodie *et al.*, 2011).

Different studies have used different approaches to measure social media engagement. De Vries *et al.* (2012) measured numbers of likes and comments, Tafesse (2015) measured number of likes and shares, Luarn, Lin and Chiu (2015) and He, Zha and Li (2014) measured number of likes, comments and shares. Ge and Grezel (2017) adapted a formula used by Unmetric.com to calculate the weighted customer engagement. The formula used was calculated as follows: Likes\*1 + Comments\*5 + Reposts\*10. The weighted formula considers the different levels of brand post engagement as described above and thus we see it as a valuable approach to calculate engagement. According to Coelho, de Oliveira and de Almeida (2016) the primary engagement metrics for Facebook are likes, comments and shares, and for Instagram likes and comments. We will use the metrics proposed by Coelho, de Oliveira and de Almeida (2016) for our study, together with the weighted formula used by Ge and Grezel (2017), to measure consumer brand post engagement in this study.

### Content Type And Engagement

Content in marketing communication strategies refers to the message that is transmitted (Mohr & Nevin, 1990). Content categorizations are based on the type of information that is exchanged and the type of influence message that is embedded in

the exchanged information (Mohr & Nevin, 1990). Good social media content is likely to trigger consumers to engage (Ashely & Tuten, 2015). Previous studies propose different types of brand posts typologies and categorizations of content in social media. For example, based on an extensive study of Twitter content the following content types were identified: information-sharing, emotion-evoking, and action-inducing content (Taecharungroj, 2017). The findings are, however, mixed as to whether the content type actually affects consumer engagement (Schultz, 2017). De Vries *et al.* (2012) did not find informational and entertaining content to have an impact on likes and comments in social media, while Luarn, Lin and Chiu (2015) found informational, entertainment, remuneration and social posts to be crucial elements in driving online engagement. Cvijikj and Michahelles (2013) also found entertaining content to drive liking, commenting and sharing on social media. On the other hand, De Vries *et al.* (2012) found that higher interactivity and vividness of posts showed a positive impact on the number of likes. Interactive posts were defined as contests to win prizes, questions, quizzes and calls to act (urge fans to respond), and high vividness was defined as announcements of upcoming brand events and videos. Tafesse (2015) in turn categorized content as transactional, informational and entertaining. In that study entertaining content showed positive effects on Facebook likes. Also, content novelty (post on new products, brand events, unique product displays) was found to have a positive effect on the number of likes and shares (Tafesse, 2015). Coelho, de Oliveira and de Almeida (2016) findings show that especially events and promotion related content led to higher engagement on Instagram and in a study by Schultz (2017) content with presentations of competitions showed high influence on the social media engagement (likes, comments, shares) and recruiting information showed high influence on likes and shares. There are also differences between different industries regarding consumer engagement with content in postings (Schultz, 2017; Kim, Spiller & Hettche, 2015). In the industrial service category, the self-oriented content (i.e. information about the company or its products, or company events and campaigns) was less liked than task- and interaction-oriented content, while in the consumer convince industry self-oriented content was liked and shared more than interaction-oriented content (Kim, Spiller & Hettche, 2015). Content on different types of social media site also generate different types and levels of consumer engagement (He, Zha & Li, 2014).

See Table 1 for a summary of some previous categorizations of social media content type and their effects on consumer engagement. As we can see from Table 1, there are clearly diverse classifications of content type in social media postings and differences in how content effects engagement. Based on this, we raise the following two research questions:

- What type of content are interior design brands posting on Facebook and Instagram?
- Are there differences in consumer brand post engagement regarding these postings?

Table 1: Content type and effect on engagement in previous studies

| Study                                  | Content type  | Effect on engagement  |
|--|---|---|
| De Vries, Gensler & Leeflang, 2012     | <u>Informational</u> : information about the brand and/or its products.<br><u>Entertaining</u> : content unrelated to the brand e.g. funny movies or anecdotes.   | No influence on likes and comments.   |
| Luarn, Lin & Chiu, 2015                | <u>Informational</u> : content about specific products, brands and related marketing activity.<br><u>Entertainment</u> : humorous videos, teasers, slogans and wordplay.<br><u>Remuneration</u> : promotions, coupons, special offers and other offers to attract attention.<br><u>Social posts</u> : questions and statements aimed to bring out interaction with users.   | All categories showed positive effect on likes, comments and shares.  |
| Tafesse, 2015                          | <u>Transactional</u> : price promotions, deals and other sales related details.<br><u>Informational</u> : product reviews, product recommendations and specifications.<br><u>Entertaining</u> : contests, events, humorous things.  | Entertaining content affected Facebook likes positively.  |
| Coelho, de Oliveira & de Almeida, 2016 | <u>Advertising</u> : posts to promote brands and entertaining content.<br><u>Events</u> : photo and video media, directly connected to brands.<br><u>Fan</u> : the fan is responsible for the content or the idea.<br><u>Information</u> : Data about events, places, opportunities, people or celebrities, directly connected to a brand.<br><u>Promotion</u> : like quizzes, which promote participation of followers through rewards.              | Events and promotions lead to higher engagement on Instagram.   |
| Schultz, 2017                          | <u>Charity</u> : information on charity events.<br><u>Competition</u> : presentations of competitions.<br><u>Content</u> : informative post related to a product.<br><u>Coverage</u> : reports event such as photo shoots.<br><u>Holiday</u> : posts referring to holiday, season or weekend.<br><u>HR</u> : recruiting information.<br><u>Product</u> : post related to specific products.<br><u>Promotion</u> : discounts, sales or store openings. | Competitions showed high influence on likes, comments and shares. HR showed high influence on likes and shares. |

|                              |   |  |
|------------------------------|---|--|
|                              | <u>Statement</u> : posts stating an opinion on a topic.   |  |
| Cvijikj & Michahelles, 2013  | <u>Entertainment</u> : teasers, slogans, or word play, most of those explicitly asking for an engagement from fans.<br><u>Information</u> : traditional advertisement, thus containing information about specific products, brand, or the company.<br><u>Remuneration</u> : sweepstakes organized within the Facebook brand pages.  | Entertainment was found to be the most influential, increasing liking, commenting and sharing. |
| Kim, Spiller & Hettche, 2015 | <u>Task oriented contents</u> : persuasive messages, new product announcement, online discounts, coupons and contests.<br><u>Interaction oriented contents</u> : Content not directly related to the brand, celebrating a special day or asking to interact and answer questions<br><u>Self-oriented contents</u> : Information about the company or its products, or company events and campaigns. | Content type impact engagement dependent on industry type                                      |

Source: This study.

## METHOD

### Data Collection And Sample

This study employs content analysis to address the research questions. The three companies selected for data collection were chosen based on their high rankings in brandsome.fi, a Finnish site that ranks brands based on their popularity. Popularity on brandsome.fi is the number of followers in the following social media sites; Facebook, Twitter, Instagram, YouTube and Pinterest. The pick was made week 16/2017 within the interior design store (sisustusliike in Finnish) category on brandsome.fi. Hence, all three companies (referred to here as brand A, B and C) are Finnish brands that can be categorized as interior design brands. All three companies are small-medium size enterprises regarding number of employees and turnover.

All public brand posts published in Facebook and Instagram between October 2016 and March 2017 for all three brands were collected manually. One researcher functioned as the collector and coder of the raw data used for this study. By manually looking at each post during data collection, a better understanding of the visual intent of the posts should be achieved, as opposed to an automatic procedure with a software program (Laestadius, 2017). All information was gathered without logging into either a Facebook or Instagram account during the data collection, as suggested by Laestadius (2017). Logging in may result in inclusion of data from private accounts (Laestadius, 2017).

The sample was collected between April 1st and 26th 2017. The number of likes, comments and shares change continuously in social media; or posts may be managed, made private, or deleted by users after being collated. A final update was made April 30th 2017 and hence the numbers presented in the results are representative of the situation on April 30th 2017. Laestadius (2017) recommend allowing sufficient time for users to reflect on posted content after it has been published. Data collection one month after the last post ought to be sufficient, as most reactions are often received within the first 48 hours. Overall, the sample size was 392 Facebook posts and 388 Instagram posts, which makes a total of 780 posts.

### Operationalization And Coding

To operationalize the type of content in the posts we used the content types of previous studies as a base, as described earlier in Table 1. In the initial coding process a textual description of the main message in every post was registered, along with data on product visibility in the message, and whether the content was shared or not. By analyzing the descriptions of the posts, we discovered other types or nuances of content that did not fit directly into previous categorizations. Hence, we partly adopted an inductive approach to code the content categories. We coded transactional and entertaining content as described in Tafesse (2015) but re-labeled informational as inspirational content. An inspirational approach to present product related content seems to be typical for interior design brands, where the postings strongly aim at evoking emotions and design ideas regarding the products, patterns and different product related settings. A similar category of emotion-evoking content has also been identified by Taecharungroj (2017). Cooperative was added, as a substantial part of the content in the posts was shared or co-produced content with bloggers, stylists, magazines, TV-shows etc. A similar type where the fan was behind the idea and content of the post was used by Coelho, de Oliveira and de Almeida (2016). Also Taecharungroj (2017) identified content-sharing as an important social media communication strategy by a global brand. A fifth type, miscellaneous, was added as some content could not be fitted into any of the other types. This content was typically general announcements and updates. See Table 2 for a description of the five content types used in this study. The final coding of content types was conducted by the principal researcher based on the description of each collected posting.

Different emotional icons (emoji's) in Facebook related to like/dislike/heart were not separated, therefore "likes" include all these reactions. Although the use of emoji was mainly positive towards the brands, some likes may in fact be negative reactions towards brand posts. Hence, we are here mainly measuring the behavioral dimension of engagement, rather than the emotional dimension (Hollebeek *et al.*, 2014). The number of comments and shares were also collected from the brands' Facebook fan pages and comments from the brands' Instagram fan pages. In Instagram, shares are not shown in a similar manner to that of Facebook posts. In Instagram, content is basically shared by tagging other people, or the post is reposted to the person's own account. Also, Coelho, de Oliveira and de Almeida (2016) suggested to use likes and comments in Instagram. To calculate the weighted consumer brand post engagement on both platforms, we used the formula adapted from

Unmetric.com by Ge and Grezel (2017). The formula used was calculated as follows: Facebook engagement = 1\*Likes + 5\*Comments + 10\*Shares and Instagram engagement = 1\*Likes + 5\*Comments.

The coding also included posting time according to the six months investigated (October to March), the social media site (Facebook, Instagram) and brand page coded according to the three companies (A, B and C) investigated. The follower base of the three brands was also registered at the final sample update.

Table 2: Content type

| Content type  | Description  |
|---------------|--|
| Inspirational | Inspirational product and pattern picks, new product arrivals and other inspirational product related calls to act (e.g. take a look at this, get inspired). |
| Entertaining  | Contests for prizes, fun events and questions for fans.  |
| Transactional | Price promotions, deals and other sales related details.   |
| Cooperative   | Shared or co-produced content with bloggers, stylists, magazines, TV-shows etc.  |
| Miscellaneous | Content which does not fit into any of the other characteristics (e.g. general announcements and updates).   |

### Statistical Analysis

All statistical analysis were conducted in IBM SPSS Statistics 25. Preliminary analysis were conducted to check normality distributions and homogeneity of variance between groups. The main analysis included descriptive statistics of brand postings and content type, and a four-way ANOVA-analysis and an one-way ANOVA-analysis with post hoc tests to understand brand post engagement. An ANOVA-analysis was chosen as the dependent variable is continuous and the independent variables are categorical.

## RESULTS

### Brand Postings and Content Type

In Table 3 we can see that Brand A was the most active in posting content of the three brands with 146 posts in Facebook and 166 posts in Instagram. Brand B was the only brand to publish more posts in Facebook than in Instagram – on average 22 posts per month in Facebook and 14 posts per month in Instagram. Brand C posted on average 19 posts per month in Facebook and 24 in Instagram. By summing up the mean number of posts per week for all three brands, five posts was the mean both on Facebook and Instagram. Overall, November to December before Christmas was the peak period for postings on both platform (Table 3). Of the total 388 Instagram posts, 156 (40.2%) were made during this period. Similarly, out of 392 Facebook posts, 147 (37.5%) were posted in November to December. Also, other festivities (e.g., Halloween, Finnish Independence Day, Valentine's Day, and Father's day) generated peaks in frequency of postings. All three brands have a larger follower base on Facebook. The average follower base of the three brands, as of the final sample update, was 31048 followers on Facebook and 17300 followers on Instagram (Table 3).

Table 3: Number of postings, posting time and followers

| Brand page | Postings |          |           | Posting time |     |     |     |     |     | Followers |           |
|------------|----------|----------|-----------|--------------|-----|-----|-----|-----|-----|-----------|-----------|
|            | Total    | Facebook | Instagram | Oct          | Nov | Dec | Jan | Feb | Mar | Facebook  | Instagram |
| A          | 312      | 146      | 166       | 51           | 54  | 64  | 50  | 36  | 57  | 16486     | 13300     |
| B          | 212      | 130      | 82        | 27           | 42  | 54  | 35  | 26  | 28  | 32146     | 21800     |
| C          | 256      | 116      | 140       | 48           | 53  | 37  | 39  | 35  | 44  | 44510     | 16800     |
| Total      | 780      | 392      | 388       | 126          | 149 | 155 | 124 | 97  | 129 | 93142     | 51900     |
| Average    | 260      | 131      | 129       | 42           | 50  | 52  | 41  | 32  | 43  | 31048     | 17300     |

Table 4 shows the postings according to content type. Most of the posts on both sites were of inspirational character. Overall, Instagram received more inspirational posts than Facebook. Facebook in turn received more transactional and miscellaneous posts than Instagram. Entertaining and cooperative content gained quite similar numbers of posts on both social media sites. A chi-square test for independence indicate a significant association between social media site and content type,  $\chi^2(4, n = 780) = 43.107, p < 0.001$ .

Table 4: Posting according to content type

| Content type  | Total posts | N = 780 % | Facebook posts | N = 392 % | Instagram posts | N = 388 % |
|---------------|-------------|-----------|----------------|-----------|-----------------|-----------|
| Inspirational | 450         | 57.7      | 194            | 49.5      | 256             | 66.0      |
| Entertaining  | 20          | 2.6       | 11             | 2.8       | 9               | 2.3       |
| Transactional | 150         | 19.2      | 91             | 23.2      | 59              | 15.2      |
| Cooperative   | 118         | 15.1      | 58             | 14.8      | 60              | 15.5      |
| Miscellaneous | 42          | 5.4       | 38             | 9.7       | 4               | 1.0       |

### Consumer Brand Post Engagement

In Table 5 we can see the mean score of Likes, Comments and Shares per post on the two sites, followed by the weighted engagement (WE) mean score. In Table 6 we can see the descriptive statistics of weighted engagement according to content type overall and for both Facebook and Instagram. Based on the numbers in Table 5 we can see that Instagram gained overall higher consumer brand post engagement, despite that shares are excluded from the Instagram score. The main difference between Facebook and Instagram seems to be the mean number of Likes. We also divided the WE number with the average number of Facebook and Instagram followers of the brands. Instagram scores a higher follower engagement rate 2.72% (WE 469.89 / Followers 17300) than Facebook 1.01% (WE 304.17 / Followers 31048).

Table 5. Descriptive statistics of consumer brand post engagement

|                     | Facebook Mean | SD     | Min | Max   | Instagram Mean | SD     | Min | Max  |
|---------------------|---------------|--------|-----|-------|----------------|--------|-----|------|
| Brand post likes    | 235.71        | 265.86 | 2   | 1751  | 460.64         | 269.54 | 72  | 1923 |
| Brand post comments | 10.83         | 96.61  | 0   | 1706  | 1.85           | 2.17   | 0   | 15   |
| Brand post shares   | 2.86          | 9.40   | 0   | 102   | -              | -      | -   | -    |
| Brand post WE*      | 304.17        | 633.03 | 2   | 10037 | 469.89         | 272.98 | 72  | 1963 |

\* Likes\*1 + Comments\*5 + Shares\*10

Table 6. Descriptive statistics of weighted engagement (WE) according to content type

| Content type  | Overall WE |         |         | Facebook WE |         |         | Instagram WE |        |        |
|---------------|------------|---------|---------|-------------|---------|---------|--------------|--------|--------|
|               | N          | Mean    | SD      | N           | Mean    | SD      | N            | Mean   | SD     |
| Inspirational | 450        | 421.45  | 361.14  | 194         | 299.00  | 318.60  | 256          | 514.24 | 296.26 |
| Entertaining  | 20         | 1121.20 | 2224.37 | 11          | 1718.91 | 2723.47 | 9            | 412.89 | 177.55 |
| Transactional | 150        | 311.35  | 342.36  | 91          | 264.62  | 336.73  | 59           | 383.44 | 227.08 |
| Cooperative   | 118        | 289.60  | 202.91  | 58          | 185.92  | 232.97  | 60           | 389.81 | 165.09 |
| Miscellaneous | 42         | 200.00  | 153.93  | 38          | 196.21  | 159.43  | 4            | 236.00 | 98.60  |
| Total         | 780        | 386.60  | 495.00  | 392         | 304.17  | 633.03  | 388          | 469.89 | 272.98 |

In order to further analyze the data, we explored the normality distribution of the weighted engagement. The engagement was heavily positively skewed. The skewness coefficient was 10.741 and kurtosis 190.25. Hence, we did a logarithmic transformation of the weighted engagement to exclude unusual cases. Similar transformations have also been conducted in other social media engagement studies with positive skewness (Kim, Spiller & Hettche, 2015). The transformed engagement variable improved to a skewness coefficient of -0.957 and kurtosis of 2.174. We used the transformed engagement variable as dependent variable in an ANOVA-analysis to test the main and interaction effects of content type and social media site (Facebook vs. Instagram). To control for the possible main effects of the number of postings and follower base of the three brands and the time of postings, the variables brand page and posting time were included as additional independent factors in the analysis. We also tested the homogeneity of variance. The Levene's test of equality of error variances was significant (22.601,  $df_1/df_2 = 9/770$ ,  $p < 0.001$ ), thus we should set a more stringent significance level (at least 0.01) when analyzing the effect sizes of the model (Pallant, 2016).

The ANOVA-analysis does confirm the type of social media site to have a main effect on the weighted engagement (Table 7). There is also a clear interaction effect between type of social media site and content type on WE. Furthermore, the result shows a strong significant main effect of content type on engagement. Hence, our further analysis includes a one-way ANOVA with post hoc test to better understand the differences between content type on Facebook and Instagram (see below). It should be noted that the control variable brand page had a significant effect on engagement but posting time did not show significant effect. The results in Table 7 show that the model explains 30.0% of the variance (adjusted R<sup>2</sup> squared), thus it is obvious that there are other variables that also affect consumer brand post engagement.

We ran a one-way ANOVA with post hoc test to investigate differences in the logarithmic weighted engagement between the five content types for the total sample and for the Facebook and Instagram data separately (Table 8). The Levene's test of homogeneity of variance was significant for the overall data (9.973,  $df_1/df_2 = 4/775$ ,  $p < 0.001$ ) and the Facebook data (5.030,  $df_1/df_2 = 4/387$ ,  $p = 0.001$ ), but not for the Instagram data (1.550,  $df_1/df_2 = 4/383$ ,  $p = 0.187$ ). Hence, we used (as suggested by Pallant (2016)) the Welch-test for the overall data (15.000,  $df = 4$ ,  $p < 0.001$ ) and Facebook data (5.905,  $df = 4$ ,  $p < 0.001$ ), but the F-test for Instagram data (7.555,  $df = 4$ ,  $p < 0.001$ ). All three tests were clearly significant. Then we used the Games-Howell post hoc for the overall data and the Facebook data, and the Tukey post hoc test for the Instagram data. The Games-Howell post hoc test is suitable when unequal group variances are assumed and there are unequal group sizes, and the Tukey post hoc test is suitable when equal variances are assumed but there are unequal group sizes (Shingala & Rajyaguru, 2015).

In Table 6 we can see that entertaining content clearly scores the highest mean value overall, and the pairwise comparisons with the Games-Howell post hoc test does show a significant difference between entertaining content and transactional, cooperative and miscellaneous content (Table 8). In addition, inspirational content does overall show a clear positive mean difference towards transactional, cooperative and miscellaneous content.

The number of cases for Entertaining content (9 cases) and Miscellaneous content (4 cases) on Instagram is low, thus these two content categories were omitted from the Instagram ANOVA-analysis. On Instagram, inspirational content received the highest mean score. The Tukey post hoc test confirms a significant difference between inspirational content and transactional and cooperative content (Table 8). Also, on Facebook inspirational content scored a significantly higher mean than transactional and cooperative content. Entertaining content scores the clearly highest mean value on Facebook, but due to the low number of cases (11) the results need to be omitted from the ANOVA-analysis. When we analyzed the Facebook engagement numbers in detail, we found a few prize competition posts (categorized as entertaining content) that acquired very high engagement numbers. Therefore, it seems that some highly attractive prize competitions generate peaks in engagement on Facebook.

Table 7. ANOVA-analysis for the dependent Log (weighted engagement)

| Effect                           | Type III Sum of Squares | df  | Mean Square | F        | p     | Partial $\eta^2$ |
|----------------------------------|-------------------------|-----|-------------|----------|-------|------------------|
| Corrected Model                  | 257.406                 | 16  | 16.088      | 21.823   | 0.000 | 0.314            |
| Intercept                        | 5383.047                | 1   | 5383.047    | 7301.864 | 0.000 | 0.905            |
| Content type                     | 31.172                  | 4   | 7.793       | 10.571   | 0.000 | 0.053*           |
| Social media site                | 21.010                  | 1   | 21.010      | 28.498   | 0.000 | 0.036*           |
| Brand page                       | 18.333                  | 2   | 9.167       | 12.434   | 0.000 | 0.032*           |
| Posting time                     | 5.559                   | 5   | 1.112       | 1.508    | 0.185 | 0.010            |
| Content type * Social media site | 14.953                  | 4   | 3.738       | 5.071    | 0.000 | 0.026*           |
| Error                            | 562.495                 | 763 | 0.737       |          |       |                  |
| Total                            | 24632.028               | 780 |             |          |       |                  |
| Corrected Total                  | 819.902                 | 779 |             |          |       |                  |

a. R Squared = 0.314 (Adjusted R Squared = 0.300), \* The effect size is significant at 0.001 level

Table 8. Post-hoc test for content type and Log (weighted engagement) overall and on Facebook and Instagram

| (I) Content type | (J) Content type | Overall mean (I-J) difference | p     | Facebook Mean Difference (I-J) | p     | Instagram Mean Difference (I-J) | p     |
|------------------|------------------|-------------------------------|-------|--------------------------------|-------|---------------------------------|-------|
| Inspirational    | Entertaining     | -0.43761                      | 0.518 | -1.12685                       | 0.213 | 0.17346                         | 0.849 |
|                  | Transactional    | 0.55633*                      | 0.000 | 0.46102*                       | 0.042 | 0.31254*                        | 0.000 |
|                  | Cooperative      | 0.43916*                      | 0.001 | 0.55555*                       | 0.013 | 0.22260*                        | 0.019 |
|                  | Miscellaneous    | 0.77515*                      | 0.000 | 0.32246                        | 0.349 | 0.72104*                        | 0.038 |
| Entertaining     | Transactional    | 0.99395*                      | 0.017 | 1.58787                        | 0.053 | 0.13908                         | 0.939 |
|                  | Cooperative      | 0.87677*                      | 0.041 | 1.68241*                       | 0.039 | 0.04915                         | 0.999 |
|                  | Miscellaneous    | 1.21276*                      | 0.004 | 1.44931                        | 0.085 | 0.54758                         | 0.371 |
| Transactional    | Cooperative      | -0.11718                      | 0.923 | 0.09453                        | 0.992 | -0.08993                        | 0.868 |
|                  | Miscellaneous    | 0.21881                       | 0.740 | -0.13856                       | 0.969 | 0.40850                         | 0.519 |
| Cooperative      | Miscellaneous    | 0.33599                       | 0.324 | -0.23309                       | 0.832 | 0.49844                         | 0.312 |

\* The mean difference is significant at 0.05 level

## DISCUSSION AND CONCLUSION

The main purpose of this study was to explore three interior design brands' postings on Facebook and Instagram and to analyze consumer engagement towards the posts. We raised two research questions. Our first research question was: What type of content are interior design brands posting on Facebook and Instagram? Based on a content analysis we identified the following content types: Inspirational, Entertaining, Transactional, Cooperative and Miscellaneous. Most posts on both social media sites were of inspirational character, but Facebook was compared to Instagram used more for transactional and miscellaneous postings, while Instagram relative to Facebook was used more for inspirational postings. Entertaining and cooperative posts were quite evenly distributed on both sites. This shows that slightly different content strategies are used on the two social media sites. Facebook does have better linking features to e.g. external Web sites/stores, which may promote a more transactional content strategy. Instagram again is based mainly upon visual postings such as photos or images, which may boost more inspirational posts by brands. Instagram is an image and visual content dominant social media platform (Virtanen, Björk & Sjöström, 2017).

The results also show that the three interior design brands investigated are actively present in social media, they have a regular posting frequency in both Facebook and Instagram. The peaks of posts occur before Christmas and during other major events

and festivities, which is quite typical on social media sites (Coelho, de Oliveira & de Almeida, 2016). The importance of frequent brand updates in social media has also been emphasized in previous studies (Ashley & Tuten, 2015).

The second research question that we raised was: Are there differences in consumer brand post engagement on Facebook and Instagram? The results show that the levels of consumer engagement vary between the two social media platforms. The brands in this study had more followers on Facebook than Instagram, which ought to lead to higher engagement on Facebook due to the potential of higher reach. However, in this study Instagram showed a significantly higher weighted consumer brand post engagement rate than Facebook, and the type of social media site showed a significant main effect on the weighted engagement. Also the interaction effect between the type of social media site and content type was significant. This is in line with previous research that different social media sites generate different levels of engagement (He, Zha & Li, 2014). The user base on Instagram is also younger (AudienceProject, 2017; Pew Research Center, 2018), and the Instagram fans may thus be more active in social media in general. According to Pew Research Center (2018) young adults stand out in frequency of social media use. Moreover, there seems to be a consensus among industry experts that free brand post exposure has dropped especially in Facebook, e.g. due to the algorithms in the news feed. Still social media engagement rates of 1 – 3% are quite good according to some professional online sources. In this study the overall weighted engagement rate on Facebook was 1.01% and on Instagram 2.72%.

Based on our further analysis we found that inspirational and entraining content gained the highest weighted engagement numbers overall. On Facebook a few prize competitions (here categorized as entertaining content) generated very high engagement numbers. Entertaining content and competitions for prizes have also by other studies been found to generate high consumer engagement levels on social media sites (Tafesse, 2015; Schultz, 2017; Cvijikj & Michahelles, 2013). On Instagram inspirational posts clearly generated the highest weighted engagement numbers, albeit there were only 9 cases (omitted) of entertaining content. Nevertheless, it seems like the brand fans on Instagram are engaged by inspirational interior design branded content and are not only looking for deals, contests for prizes or similar. Brands should be careful that the consumers might mainly follow a brand in order to qualify for discounts or different types of coupons (Ashley & Tuten, 2015). Hence, evoking emotions in social media does seem to be an interesting communication strategy for brands (Taecharungroj, 2017). Building an emotional bond with brand fans in online communities may also deepen the fans' affection and passion for the brand (Hsu, 2019). Emotional engagement is an important dimension in the theoretical foundation of consumer brand engagement (Hollebeek *et al.*, 2014).

### Limitations And Further Research

As clearly shown in the literature review of this paper, different studies use different content classifications and consumer brand post engagement metrics on social media sites, and thus it may be hard to directly compare results between different studies. Here, we defined content types as Inspirational, Entertaining, Transactional, Cooperative or Miscellaneous, which we found appropriate based on previous research and the data set in the context of interior design on two different social media sites. The results are delimited to the context of interior design and three Finnish brands. The interior design market is aesthetically driven and hence the characteristics of Instagram as an image and visual content dominant social media platform ought to fit well within interior design. Previous research confirms that there are differences between industries how content influence engagement in social media (Kim, Spiller & Hettche, 2015; Schultz, 2017). Therefore, future studies could have a larger data set from different types of industries. Cultural aspects could also be interesting to study, and other posting characteristics such as media type (text, photo and video) could be included in the analysis. The formula used for the weighted consumer engagement could also be critically reviewed. In this study we did not consider emotional emoji reactions and thus including emotional reactions to the weighted engagement formula could be an interesting aspect to consider in further studies.

### Conclusion

To sum it up, this study contributes to previous research regarding content type and consumer engagement in social media marketing and hence it helps to understand what type of postings on two social media sites drive consumer brand post engagement. It also adds to the theoretical discussion on consumer engagement. Engagement on the two social media sites is enhanced by entertaining and inspirational content. Especially on Instagram, inspirational content created the highest brand engagement. From a managerial perspective, this study shows the importance of monitoring and analyzing postings on different social media sites. A primary insight in this study was the differences in consumer brand post engagement between Facebook and Instagram, where Instagram had a higher engagement level. Brands that want to achieve business advantages using social media need to regularly analyze themselves and their competitors on different social media sites. Future research could replicate this study by taking into account the discussed limitations and improving upon them.

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