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THE EFFECTS OF SOCIAL MEDIA CONTENT ON CONSUMER BEHAVIOR: THE CASE OF INSTAGRAM

SOSYAL MEDYA İÇERİĞİNİN TÜKETİCİ DAVRANIŞINA ETKİSİ: INSTAGRAM ÜZERİNE BİR VAKA ÇALIŞMASI

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Abstract

Understanding consumer behavior and decisions on e-commerce are vital. Well-defined consumer behavior and investigating what influences that behavior on an online shopping journey is a key for an online seller. However, having insights on what affects consumer behavior and understanding the relationship among content and user is a complex problem. There are various aspects of social media content in this process that mediates the decisions and behavior of customers. This paper investigates consumer behavior in connection with social media content from the media richness theory perspective. In particular, the changes in the content and its effects on consumer engagement and interaction were analyzed by considering the changes in engagement rates and the number of interactions. For empirical testing, a case study is conducted in a start-up e-commerce company, called Freja Silver. The variations of content have been analyzed and data-driven results have been evaluated.

Keywords: Consumer behavior, e-commerce, media richness, brand equity, purchase intention.

JEL Classification: L81

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Öz

Tüketici davranışlarını ve e-ticaretle ilgili kararları anlamak oldukça önemlidir. İyi tanımlanmış tüketici davranışı ve bir çevrimiçi alışveriş yolculuğunda bu davranışı neyin etkilediğini araştırmak, bir çevrimiçi satıcı için anahtardır. Ancak, tüketici davranışını neyin etkilediği hakkında fikir sahibi olmak ve içerik ile kullanıcı arasındaki ilişkiyi anlamak karmaşık bir sorundur. Bu süreçte müşterilerin kararlarını ve davranışlarını yönlendiren birçok aracı vardır. Bu makale, sosyal medya içeriğiyle bağlantılı olarak tüketici davranışını medya zenginliği teorisi perspektifinden incelemektedir. Özellikle içerikteki değişimler ve bunun tüketici etkileşimi ve interaksiyonu üzerindeki etkileri, etkileşim oranlarındaki ve interaksiyon sayılarındaki değişimler dikkate alınarak analiz edilmiştir. Deneysel testler için, yeni bir e-ticaret işletmesi olan Freja Silver'da bir vaka çalışması yapılmıştır. İçerik varyasyonları analiz edilmiş ve veriye dayalı sonuçlar değerlendirilmiştir.

Anahtar Kelimeler: Tüketici davranışı, e-ticaret, medya zenginliği, marka değeri, satın alma niyeti.

JEL Sınıflandırılması: L81

1. Introduction

The increase in smartphone usage and social media platforms have boosted the importance of online commerce. Online commerce is a vital tool for enterprises in every area today since it sustains the relationship between the company and the customer. Not only online business to customer relations are defined with online commerce but also business to business marketers are dependent on the online commerce usage. Thus, usage of online commerce should be done in the most beneficial way to help enterprises to grow or sustain their business successfully. Approaching a successful online commerce process is possible through a successful social media management. Social media success is mostly dependent on content creation. Content creation process should be carried out very carefully to direct users to a complete shopping journey.

The challenge in these processes is to understand the what drives the user engagement. Understanding the user interaction and engagement in online commerce is usually the key to get users turn into customers. The user engagement is set by the appropriate media that would be selected for the online commerce. Allocating the appropriate type of media would be dependent on the attention, interest, search, action, and share stages to show the effectiveness of the media (Tseng & Wei, 2020). These stages are where the users are going through until they become an end user.

Throughout the activities of users in the social media users, they get attracted by many contents. That makes the competition on online commerce in social media platforms harder (Jaakonmaki et al., 2017). The content and the medium an enterprise would use should be efficient enough to engage the users. However, research (Seltzner, 2021) reveals that 91% of marketers are not certain about what are the most appropriate ways to engage users. The reason for that is the measurement of the content and consumer relationship is complex. In light of this question, research (Hoffman and Fodor, 2010) examined which metrics on social media campaigns are improving the effectiveness of the campaigns in terms of engagement and return. In social media platforms return of investment is measured as the engagement in consumer behavior (Hoffman & Fodor, 2010).

According to the literature, engagement depends on many different aspects. However, designing the advertisement on e-commerce is the key element in these processes. The design of elements in e-commerce includes visual dimensions of the contents such as colors used in the content Kumar, 2017 and Jackste et al., 2017; or the attraction of the image used Lee et al., 2015 and Smith, 2008; and even type styles Franken et al., 2015.

This design of the content is vital for increasing the reach and engagement by understanding which content type best suits for the target audience of the online advertisement. The development of social media platforms is affecting the change in the media types day by day. As the social media platforms evolve, the design of e-commerce advertisements and content are required to evolve accordingly. Thus, there is an undeniable transition on what drives the user engagement. Here, the consumer behavior has been evolving accordingly with the changing content types, changing nature of social media platforms and even the benefits and limitations of the new technologies.

In this paper, the changes in the content and its effects on the consumer engagement and interaction was analyzed by considering the changes in engagement rates and number of interactions in Instagram Insights analytics. The variations of contents used to test what content is the audience are more interested. The paper is organized as follows. An introduction to the subject is given. Preliminaries and the theoretical background about the consumer behavior, purchase intention and media richness are followed by the introduction. Then, the case study and the methodology are explained, and the paper is concluded with the experimental findings and conclusions.

2. Literature Review

2.1 Consumer Behavior, Decision Making, and Purchase Intention

Consumer behavior is the key for a marketing plan since everyone is a consumer of certain things. Understanding the consumer behavior is essential for increase sales in an enterprise by knowing the requirements and wants for a good strategy. The perception of consumers towards the products or content provided by the enterprise. It is important to understand the consumer behavior well because the right marketing strategy would save more time, cause less problems and cost less. Understanding the consumer behavior would also lead to increased customer retention and loyalty. These are the milestones for a strong brand or business.

The antecedents of consumer behavior are various. There are situational, physical, social factors, reason to buy, personal and demographic attributes and such (Ünsalan, 2016). These lead to the attitude and consequently decision of consumer to buy. For the right marketing, the right content should be delivered to influence this decision.

The attitude towards buying action is referred as purchase intention (Akkaya et al., 2017). According to the prior study, experiencing richer media leads to a more positive attitude towards a brand. This is based on the positive feeling of experiencing the brand or product more and internalize the brand

more emotionally. This positive attitude is more likely to be finalized with a purchase or at least a purchase intention.

The behavioral intentions are mostly researched in the context of behavioral theories. Theory of reasoned action (TRA) is one of the essential studies for explaining the reasons of human behavior (Ajzen & Fishbein, 1980). The theory studies the consciousness of the behavior. Ajzen, 1991 considers the act as the result of intentions and willingness towards a behavior. Similarly, theory of planned behavior (TPB) is extended from the study of TRA (Ajzen, 1991). TRA, considers the behavior as the subsequent result of intentions towards the behavior and intentions are based on mainly that attitude towards a behavior and the subjective norm of individuals.

Subjective norms are defining one's beliefs about certain things, and they are usually highly effective on the behaviors. Subjective norms are including the perceptions of individuals. These perceptions include their role models and perceived risk-taking factors (Wang & Wong, 2004). The intention to purchase a product or service contains several risks according to individuals' perceptions and subjective norms especially in e-commerce. These perceptions on the risk can highly affect the purchase decision in the negative way (Chang & Chen, 2008). The intention to purchase a product or service is also rooted on the willingness to pay.

2.2. Media Richness

The media richness theory (MRT) often referenced in consumer behavior and medium type effect research. Media richness is defined as "the ability of information to change understanding within a time interval" (Daft & Lengel, 1986). Therefore, it should have a significant role in e-commerce since the time interval to get a consumer's attention is very limited. E-commerce brought advantages along with some limitations in advertising the products/services. The accessibility and time-space independency of e-commerce has allowed vast numbers of individuals to be able to see the advertisement of an enterprise online. However, there some limitations of e-commerce especially when the usage of smartphones increased. Small screens and the ever-increasing amount of content that is being generated everyday makes it harder to keep the potential audience attracted. Therefore, the demand on richer media is more today to get the audience engaged to your content. The term rich media refers to a form of digital advertising while standard display ads include low interactivity and basic image and text content, rich media advertisements include content with higher interactivity such as video. In Fig. 1, the evolution of advertisement elements that can be included in rich media advertisements.
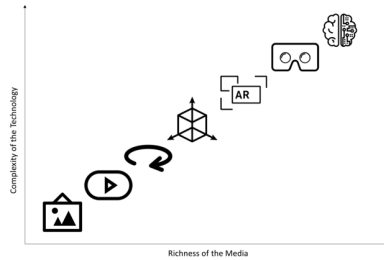
Figure 1: Evolution of the rich media (Meissner, 2005).

As can be seen from the figure above, rich media type is changing over time with the increase in the technical complexity. While the opportunities to include more aspects or more reality into a content, the media type that a consumer receives gets richer. The usage of reels is the rich media type for Instagram, and it is assumed to increase the engagement. However, there are no studies that specifically investigates the effect of reels on engagement.

3. Methodology

Freja Silver is a start-up e-commerce and s-commerce business, that is selling handmade silver jewelry products. Since it is a new enterprise, their e-commerce and s-commerce platforms were not getting much interaction. As the content sharing on the Instagram page and the website started, the enterprise owners wanted to get insights from the customer data. The goal in this case study was to understand which content the customers are interested in.

Understanding what really consumer wants and why they engage to a content in an e-commerce platform is a complex problem. Data we are obtaining from the analytics platforms is very valuable to make interpretations and make meaningful predictions about the consumer interests and behavior. The literature on what would be the effect of the content creation and variations on the consumer and engagement is scarce. Thus, there are no scales to compare for the engagement and types of media on Instagram. However, models for user engagement was suggested in Lehmann et al., 2012, and used "popularity, activity, and loyalty" metrics in the websites. Here, there are some measurements we cannot take with Instagram analytics such as loyalty, return to the site. Therefore, this study aims to investigate real posts with some variations and see if the analytics would show significant differences.

Descriptive analytics work has been carried out and data science approach was adopted for this study. Google Analytics, Facebook Business, and Instagram Analytics were used to get the analyses and detailed data. In order to test the effect of content variations, the content was modified on the Instagram page of Freja Silver starting from 05.04.2021. A smooth transition in the background color was adopted. The solid white background switched with the softer tones and dummy usage

was dropped. Rather than dummies, real-life mannequins were preferred as models to show the products. Figures 2 and 3 illustrates the examples of this substitution.

Figure 2: Example of dummy usage (Instagram, Fraja Silver).

Figure 3: Example of real-life mannequin with the product (Instagram, Fraja Silver).

The website and the Instagram page of Freja Silver are considered for the analyses. In the Instagram page, the content scheduling was done. According to that schedule, more consistent feed is obtained. Consistent and strategy look in the e-commerce pages provides more attraction and reliability for the customers. For the business side, it provides a planned content flow and easy to work with environment. According to Lua, 2021, Instagram algorithm works based on; interest, relationship, frequency, following and usage in 2021.

The time spent in the Instagram is increased. The sharing frequency is increased. Call-to-action captions are used more frequently than before. These time scheduling used to have a consistency and

increase the overall interaction. The research (Bouchrika, 2021) shown the most suitable times found for the most engagement as listed below;

• Monday: 6am, 10am, and 10pm EST

• Tuesday: 2am, 4am, and 9am EST

• Wednesday: 7am, 8am, and 11pm EST

• Thursday: 9am, 12pm, and 7pm EST

• Friday: 5am, 1pm, and 3pm EST

• Saturday: 11am, 7pm, and 8pm EST

• Sunday: 7am, 8am, and 4pm EST

The above-mentioned time schedule tried to be adopted and personalized in the Instagram posts. Also, the time spent in the Instagram is increased. The sharing frequency is increased. Call-to-action captions are used more frequently than before. These time scheduling used to have a consistency and increase the overall interaction.

Here note that, Instagram Insights algorithm calculates the engagement as number of likes added to the number of comments per post and divided by the number of followers multiplied by 100. The formula of the engagement calculation is as follows.

(1)
$$100 \: x \: \left(\frac{l+c}{f}\right)$$

where l, c, and f denotes the number of like, comments per post, and followers, respectively.

4. Findings

In the Instagram page, the general demographics of the audience are Istanbul, Ankara, and Bursa for the top 3 locations. 80% of followers are from Istanbul, 7% are from Ankara, and 2% for the Bursa. The age distribution is 16.4% for 18-24, 19.9% for 25-34, 10.9% for 35-44, and 10.9% for 45-54. The gender distribution is 59% of our followers are women and 41% men. That means the age range of audience is from 18 to 54 and the male female distribution is almost half-half. So, the target audience is defined as male and female users with age of 18-34, in metropolitan cities, especially Istanbul.

Along with the feed planning, the posts are started to be evaluated in the content-wise to understand what the consumers want to see. The same product was shared with only product non-wearing, and with a mannequin as shown in Fig. 4. The interaction of mannequin-included post was higher. However, the difference was slightly higher. The third post shared with the same product was the video on Instagram. As the literature considers, the videos are richer than the images. Therefore, the richer media gains more interaction than the images. The interaction and engagement of the Reels video was significantly higher than the other two product posts.

Figure 4: Product-based content vs. video with the same product (Instagram, Fraja Silver).

The overall feed was planned according to the scheduled posts. The color integration and the integrity for the overall look tried to be sustained. The hashtag usage was also tested. Contents with and without hashtags were compared for the engagement and interactions. These hashtags used were the related to subject ones besides the slogan hashtag of the brand. In Fig. 5, there are the visualizations of how the feed looked like and how it looks now.
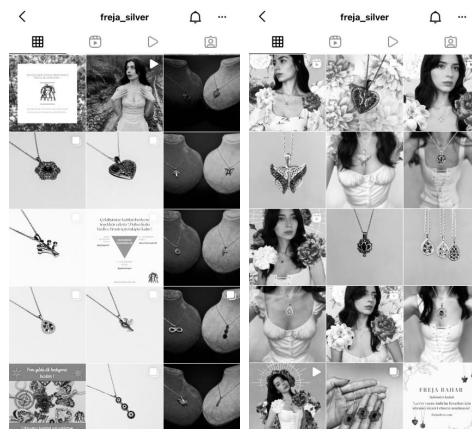

Figure 5: Feed then vs. now (Instagram-Freja Silver).

The coloring and the usage of mannequins changed the way how the feed looks. Besides the media types are variated even for the same products in the updated version of the feed. This increased the engagement and visibility of the account.

In order to compare the insights of 3 posts, the same product was used with different post variations (Fig. 6).

Figure 6: Three posts with same product (Instagram-Freja Silver).

• The image with patterned background reached 140 accounts (9% non-followers), got 8 profile visits, 168 views, 40 likes, 4 saved.

• Reels reached 2.847 accounts, played 2.863 times, 49 likes, 2 share and 2 saved.

• The image with real life mannequin background reached 153 accounts (5% non-followers), got 3 profile visits, 164 views, 31 likes, 3 saved.

The difference that reels made is significant in the rates of reached accounts. However, likes are not significantly higher than the images. Using the real-life mannequin did not show significant difference than the patterned background.

After 23.04.2021, the content variety and the frequency of content sharing have been increased. As the modifications started, the rates for reaching accounts have increased by the end of May 2021. The representation can be seen in Fig. 7.
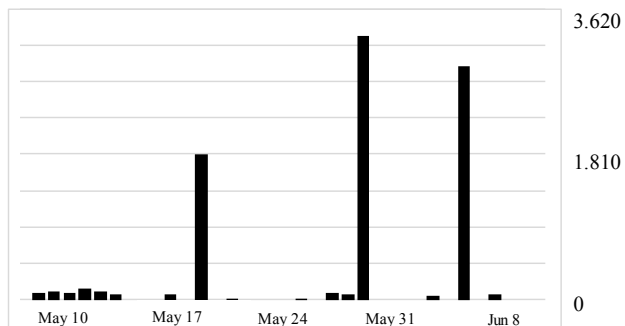

Figure 7: Accounts reached in the last 30 days from June 9, 2021 (Instagram Insights).

The accounts reached is increased 2.398% according to the last month (8.819 accounts). 473 accounts were already followers and 8.346 were non-followers. The non-followers were mostly reached by the reels videos that we shared. In total 8.559 accounts were reached by the Reels videos. Image posts provided us to reach 887 accounts and 41 accounts were reached by IGTV videos, and 6 from stories. In Fig. 8, there is the representation of how the distribution of accounts is reached via different media types
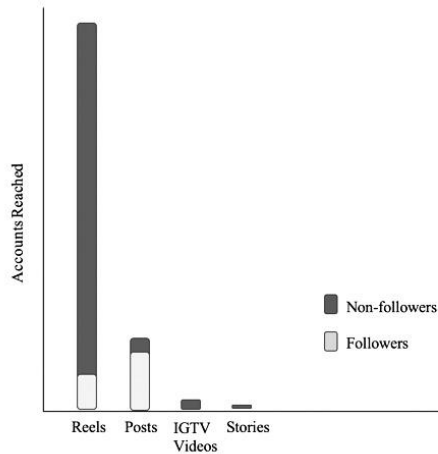

Figure 8: Accounts reached and the media type (Instagram Insights).

When we compare the hashtag usage among two similar posts, the post with hashtags have higher rates. In Table 1, the comparison can be seen.

Table 1: Comparison of content with hashtag and without hashtag.

	Sutr's Crown (with hashtag)	Myrkvi Butterfly (without hashtag)
Profile visits	11	4
Reach	204	181
Follows	-	-
Views (Total)	228	203
Views (From Main Page)	179	161
Views (From Profile)	39	35
Views (From Discover)	6	6
Views (From Other Pages)	4	1
Likes	41	31
Saved	1	2

The usage of hashtags in similar type of content does not affect the new follower rates and the saving rate according to the Table 1. They are assumed to be affected by the attraction to the consumers. However, visibility of the content on the feed have increased. By that way more accounts reached. In the reached accounts, both posts have 14% newcomers (who does not follow the account). We can say that the for the engagement and reach for the new accounts is not only about the hashtag usage.

To understand the difference between gifs and reels videos, we cannot deny that reels are the biggest impact on post visibility and influence the engagement and interaction rates. However, gifs are considered as the one step behind in terms of media richness. When we compare the gif and reels;

• Gif reached 333 accounts, 98 likes, 23 shared via direct messaging, and 20 saved.

• The reels with music, reached 2.847 accounts, 49 likes, 2 shared via direct messaging, and 2 saved.

The visibility of reels is significantly higher. However, gif liked more, shared and saved more. The engagement and interaction are higher for the gif. Account reaches does not necessarily attract people.

5. Discussion and Conclusions

The overall engagement, reach, and interaction of the Instagram page has been increased, which is line with the findings in literature (Rietveld et al., 2020). When the content type is changed than the frequently shared ones, the reach and engagement rates get a bit higher. However, the variety should be kept constantly changing. The modifications in the richer or less rich media types does affect the accounts reached and the visibility of the posts (Rosenkrans, 2009). Besides, the interaction is also being affected by the richness of media type or the content modifications. Planning the usage of rich media content for a consistent social media page of a brand is significant to realize the consumers' intentions and what influences their behavior. The attraction and visibility affect the consumer with the rich media used in the proper planning. In this work, it was found that especially reels have a significant importance in the visibility. Still, reaching accounts are not solely enough to increase the engagement and interaction. For the increase in the engagement and interaction, reaching the target audience should be aimed. The assumption of sharing rich media or using reels on Instagram would increase the engagement can be claimed to be valid for visibility but not sufficient for the engagement. The colors used and the hashtags are also the same in terms of engagement and visibility. Unless the users seeing an account are not interested in the content/product, visibility would only increase the chance to attract new customers within a variety of population. Modifications in the content and variety of media richness may be influencing the visibility of the brand yet they are not solely sufficient to attract customer, find new customers, increase the engagement and interaction. Targeting the right audience is an important aspect along with the type of content shared on an e-commerce platform (Petrovski & Pestana, 2017). Thus, the visibility should be increased simultaneously with aiming the interaction and engagement of the target audience.

6. Limitations and Future Work

As a future work, the target audience can be tested with the different variations of the content type. Besides, the A/B testing with Facebook Ads could not been applied. Besides, richer media types (e.g., augmented reality) can be included in the analyses to investigate its effect. Variations of content and number of contents can be increased to understand their effect in the long term. Besides, the effect of story sharing on Instagram with and without call-to-action elements (e.g., links to the website) can be tested. Timing of the content sharing can be also included in the further detailed investigations.

Author Contribution

CONTRIBUTION RATE	EXPLANATION	CONTRIBUTORS
Idea or Notion	Form the research idea or hypothesis	Zemzem Selin ORUÇ Mehmet N. AYDIN
Literature Review	Review the literature required for the study	Zemzem Selin ORUÇ
Research Design	Designing method, scale, and pattern for the study	Zemzem Selin ORUÇ Mehmet N. AYDIN
Data Collection and Processing	Collecting, organizing, and reporting data	Zemzem Selin ORUÇ
Discussion and Interpretation	Taking responsibility in evaluating and finalizing the findings	Zemzem Selin ORUÇ

Conflict of Interest

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Resume

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