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Crossing the Vertical Divide:

Exploring Technical Challenges and Consumer Dynamics in Mobile Vertical Video

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Abstract

This research paper explores the ever-changing field of mobile vertical video marketing, which is influenced by the growing use of smartphones and the particular tastes of consumers. The goal of the research is to better understand the technical issues, difficulties, and techniques involved in producing vertical films and how they affect consumer engagement, brand attitudes, and content preferences. Three in-depth interviews with professionals in the field provide insightful information about the complex interplay between technical difficulties and customer responses. Growth in vertical video can be attributed to factors such as the development of platforms such as TikTok and adaptive changes in Instagram formats. The effectiveness of mobile vertical video content is generally impacted by challenges such as pixel width differences on mobile devices and smooth adaption to various social media formats. The study underscores the significance of clear, visually appealing content suitable for the vertical frame and underlines the importance of flexibility and creativity in this dynamic environment. The study makes recommendations for potential areas of research, including creating guidelines for creators of content, researching new technologies and looking into human perception.

I. Introduction

With the increasing use of smartphones, the vertical use of videos is becoming more and more important, and as a result, videos in portrait format are also being promoted in social media applications. Younger audiences rarely switch to landscape when using their smartphones, mainly due to discomfort and the subjective feeling that the 16:9 format looks nicer (Mulier et al.,2021).

Mobile users typically hold their phones vertically about 94% of the time. This preference for the vertical screen orientation of smartphones is driving the production of mobile vertical video content. This format appeals to mobile users because they can easily capture and watch video content without needing to tilt their phone 90 degrees (Mulier et al.,2021).

This research explores the growing area of mobile vertical video marketing, analyzing its specifics and effectiveness in influencing consumer perceptions toward brands. Three in-depth interviews with people working in the field of vertical video creation have been held in order to explore different aspects of this phenomena. These interviews will provide insights that will present insight on the technical details, difficulties, and strategic considerations that are specific to creating vertical videos for mobile devices. Through a discussion of the connection between technical considerations, consumer engagement, and the changing digital content creation environment, this study aims to provide insightful information to the constantly developing field of mobile vertical video marketing.

II. Literature Review

Vertical Alignment

The vertical format creates new possibilities for physical performance and character development by enabling the whole length of a person to be presented. People tend to evaluate one another based on the shoes we wear, our walking, or our posture. But in the absence of a vertical aspect ratio, we hardly ever get a close-up look at the protagonists' lower bodies. Because of the limitations of the medium, it is uncommon to see a person depicted head to toe in a horizontal format unless they are positioned far from the camera and framed in a long shot (Clayton, 2019).

Since the human eye is naturally inclined toward horizontal smooth pursuit, horizontal displays are preferred in television and movies, but vertical formats are more commonly used in print media because they are easier to read. Additional research on customer behavior reveals context-dependent preferences for both vertical and horizontal displays, with processing ease influenced by price discounts and menu arrangement. The discussion of vertical versus horizontal video formats is placed within the framework of mobile devices. Supporters of vertical video dispute the idea of "Vertical Video Syndrome," claiming that it is an aesthetic benefit designed for mobile screens which fits with shifting patterns of consumption brought by mobile device technology. This change calls into question the outdated idea that mobile video creation requires a single screen format (Mulier et al.,2021).

Mobile Vertical Video Marketing

With the usage of mobile devices, the trend of mobile video becoming the primary way consumers consume content. Indeed, mobile devices are the fastest growing medium for digital marketing, with smartphones driving the overall increase in consumers' digital content viewing time. Moreover, more than 75% of all video viewing is on mobile devices. Consumers are 1.5 times more likely to watch a video on a smartphone than on a computer. Therefore, video marketers need to rethink their online strategies and implement video marketing more intensively in the mobile space and follow trends such as the vertical video trend (Mulier et al.,2021).

Effectiveness of Mobile Vertical Video

The effectiveness of mobile vertical video marketing is explored in "The Way Up: The Effectiveness of Mobile Vertical Video Marketing" by Mulier et al. (2021). It consists of three different studies. The first two are going to be explained in the following paragraphs (Mulier et al., 2021).

The first study within the paper examines customer engagement behavior, revealing that vertical videos outperformed horizontal counterparts in terms of frequency of play. The second study focuses on the processing fluency of vertical video advertising, demonstrating that viewers perceive less effort when watching vertical videos compared to horizontal ones (Mulier et al., 2021).

Mobile vertical video ads were found to increase interest, customer engagement behaviors (CEB), and information processing speed compared to traditional horizontal video ads. In addition, mobile vertical video ads were found to have higher completion rates compared to horizontal video ads. In addition, not all people watch videos on mobile devices, especially members of the older generation. Therefore, to reach a broad audience (without specifically targeting a generation or a certain demographic segment), it is recommended to create two versions of video ads and marketing messages: one for vertical viewing on mobile devices to reach younger viewers, and one horizontal to reach older viewers (Mulier et al.,2021).

Social Media Short Video Marketing

The influence of social media short video marketing on consumer brand attitude is investigated by Liu et al. (2019). Three dimensions—interesting content, scene-based experience, and user participation—are identified as significant factors positively impacting brand attitudes. Short videos, often shared on platforms like TikTok and Instagram, emerge as powerful tools for brand communication and engagement. The research model, shown on the right, gives a quick overview of how social media short video marketing influences consumer brand attitude (Liu et al., 2019).

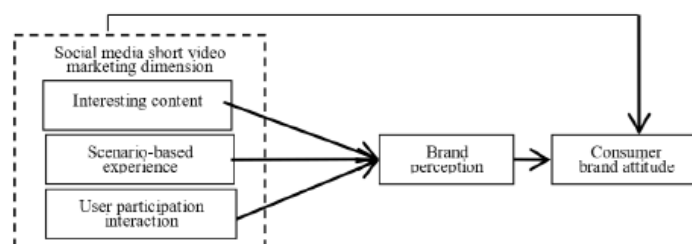


Fig. 1. Research model

- 1) Interesting content has a beneficial effect on brand attitudes. The content with strong interest and high degree of entertainment, integrate the brand culture into the content of extensive entertainment, and enhance consumers' cognition and emotion of the brand in a relaxed and pleasant way (Liu et al., 2019).
- 2) Scene-based experience has a positive impact on brand attitude. It can help to provide consumers with a real scene that can be sensed by themselves through complex designed life scenes and consumption scenes, to display brand image fully and variously and spread brand culture, to gain more consumers' recognition (Liu et al., 2019).
- 3) User participation interaction has a positive impact on brand attitude. To deepen consumers understanding of the brand and stimulate the positive attitude towards the brand, the content should stimulate more users to participate in the creation and imitation of short video (Liu et al., 2019).
- 4) Brand perception plays an indirect role in the impact of short video marketing on brand attitude. Short videos should fully consider consumers' visual and auditory perception, the time and way of brand exposure, and show interesting content and specific experiences to improve consumers' brand perception and promote positive brand attitude (Liu et al., 2019)

III. Identification of Gaps and Contradictory Hypotheses

Within the ever-changing field of digital content creation, a notable gap in academic study has been revealed by the research into vertical video production during the past year. Although vertical video is becoming more and more common on different social media platforms, there aren't many in-depth research articles exploring this growing topic. The lack of specified standards or rules for content creators in the technical aspects of vertical video production makes this research gap particularly noticeable. A quick review of some recent research reveals that its main focus is on the marketing and effectiveness of vertical video. These nearly entirely ignore the technical issues, which is why additional research has to be done on them.

As I delved more into this complex field over the past year, it became clear that there is a lack of academic literature that makes it difficult to fully understand the process of creating vertical videos. The research is not supported by the constantly shifting social media trends, as new features and styles continue to be introduced by platforms. Because of this dynamic, content creators must permanently adapt, but they are also exploring new ground in the lack of defined technical guidelines (Jiang, 2023).

Furthermore, my research has uncovered an absence of broad research that address the complex relationship between technical difficulties in vertical video production and how they affect brand attitude, content decisions, and consumer engagement. This difference makes it more difficult to provide academic and professional information that is needed to understand digital content creation.

Considering these results, the goal of this research is to bridge the current gap by clarifying the technical aspects of vertical video creation while also offering insightful information about its dynamic and always

changing character. In doing so, this research aims to make an important addition to the field of literature on digital media while offering helpful guidance for content producers seeking to make their way through the unfamiliar field of vertical video creation in today's digital media.

IV. Research Question

This research aims to delve into the technical aspects of mobile vertical video creation, including production processes, optimization challenges, editing techniques, and collaborative workflows. By understanding the technical considerations and challenges associated with vertical video, the goal is to understand how these factors influence the effectiveness of mobile vertical video in engaging audiences and shaping consumer brand attitudes. Through the perspectives of production professionals, this research aims to contribute valuable knowledge of digital content creation and marketing. These shortcomings led to the creation of the following research question:

" What effects do technological difficulties have on customer engagement, brand attitude, and content preferences while creating vertical videos (for mobile devices)?"

To comprehensively address the question implementing interviews with professionals and experts in the field of digital media is crucial. These interviews will provide valuable insights into the practical aspects, challenges, and strategies of people actively involved in vertical video production.

V. Methodological Approach and Data

This article brings together interview data (n = 3) from creative media designers: Participants were recruited because they are either working, studying or using Social Media and Vertical Video professional or in their free time.

The interview samples included women (n=3) working and studying across digital media. For privacy reasons, participants' real names and identifying characteristics are not reported, however the samples consist of women in their 20s, living and studying in German-speaking areas in middle Europe. The interviews that took place over WhatsApp Video and the one that took place in person were recorded and transcribed with Adobe Premiere Pro and manually corrected to ensure accuracy.

In-depth interviews were structured around a series of open-ended questions to encourage participants to point out their personal view, usage and experience of vertical video also shown on different social media platforms. Topics of discussion included participants' education and professional background, use of platforms, vertical video guidelines, limitations, challenges, workflow, Consideration of different age groups, coexistence of vertical and horizontal video, evaluation of creativity online and possible future trends.

To analyse the data, I created a master document based on the common themes and trends mentioned during the interviews. Through this, I created 6 different categories, which I'm going to present below.

VI. Results

Evolution of Vertical Video

The evolution of vertical video has observed a transformative shift, which was also mentioned by the interviewees. It is notably marked by TikTok's influential presence and the adaptive changes in Instagram formats. This movement is tied to the growing frequency of the use of mobile phones, with platforms such as TikTok, Instagram Reels, Snapchat, and YouTube aligning their content to the vertical video trend. The speakers underline a significant rise in vertical video usage, highlighting its resonance across platforms. This surge is attributed to the omnipresence of vertical screens on smartphones, a factor contributing substantially to the format's widespread popularity. When analyzing the evolution of vertical videos throughout time, the speakers highlight the format's growing significance, especially in the area of social media content over time. The participants identified a wide range of platforms that they used, including Instagram, TikTok, Facebook, Youtube, and Snapchat (Interviewer 1-3, personal communication, December 2023).

Optimizing Vertical Videos for Engagement

According to one interviewee, short, useful resources and marketing content are the best sorts of content for vertical videos. Commercials and advertisements created especially for social media users run naturally with the vertical aspect ratio, enhancing engagement (Interviewer 2, personal communication, December 13, 2023).

When addressing the process of creating content for vertical videos, there is general agreement about the need of short, eye-catching elements. It is essential to take note of the vertical frame, recognize its specific characteristics, and adapt information effectively. This advice from the media designer explains how important it is to modify material to fit the special proportions of vertical videos (Interviewer 1-3, personal communication, December 2023).

The vertical video length was brought up in an interview. Interviewer 2 says that she was first drawn to short videos, but now that TikTok includes longer videos, her viewing choices have expanded. This adjustment to longer vertical videos - between three and ten minutes - illustrates how viewer tastes are changing in the context of vertical videos.

“At first I was really drawn to [...] the short videos, but since also TikTok introduced longer videos, if they're interested enough, I also watch it” (Interviewer 2, personal communication, December 13, 2023).

There is general agreement that while creating content for vertical videos, short, eye-catching pieces should be prioritized, and the vertical frame's special features should be taken into account. Understanding viewer preferences and adjusting the length of material properly becomes essential to optimizing engagement as the format continues to develop (Interviewer 1-3, personal communication, December 2023).

Vertical Video Challenges

Vertical video production presents a variety of challenges, from the concept to editing, with different formats across a variety of social media platforms that might limit seamless production. Taking advantage of multiple pixel widths on different mobile devices is a technological challenge that could affect the production and presentation of vertical videos. Interviewer 1 recommend employing professional editing software such as Adobe Premiere Pro and Adobe After Effects in order to maintain quality, as there is a minor difference between the capabilities of professional and mobile cameras (Interviewer 1, personal communication, December 10, 2023).

Interviewer 2 claimed that shooting vertical videos using traditional cameras - which are not designed for vertical videos - proves to be difficult. Visualizing the vertical format during shooting with cameras designed for landscape orientation requires a sensitive balance. Interviewer 2 notes some difficulties for older generations adjusting to new format, but dismisses major challenges with watching vertical videos, especially on phones where they fill the entire screen (Interviewer 2, personal communication, December 13, 2023).

In addressing the production challenges, factors involve keeping the proper balance of visual features within the vertical frame, integrating content that is oriented landscape, and meeting the expectations of the audience. The difficulties in establishing and gaining acceptance for this format are made worse by traditional filmmakers' misunderstanding of the format and their refusal to accept it as a standard (Interviewer 1-3, personal communication, December 2023).

When producing material for several displays, technical considerations become important. These factors include aspect ratios, screen size optimization, and placement requirements for components and captions. Instagram, among the leaders in the vertical format, presents a unique set of difficulties with limitations on full-screen and preview modes. Depending on the device that is being used, full-screen display may result in cropping, which presents more difficulties for video creators. Editing, a critical aspect in content creation, can involve using Instagram's editor for Reels, nevertheless Interviewer 3 express a need for external guidelines or tools for professional video editing programs. The difficulties in adapting videos for various platforms highlight the need for guidelines or overlays, especially when it comes to text positioning and “safe spaces” (Interviewer 3, personal communication, December 14, 2023).

When it comes to Instagram upload quality, 9:16 Full HD videos are recommended by Interviewer 3 for the best possible visual quality. Discussions about file sizes, possible compression, and uncertainties related to Instagram's upload quality, however, point to continuous difficulties in preserving quality during the upload procedure. It takes technical know-how as well as an in-depth understanding of platform-specific limitations and user expectations to navigate this complicated environment (Interviewer 3, personal communication, December 14, 2023).

„Es kommt natürlich immer drauf an, wo, also für wen sie die Werbung machen. Also wenn man sagt man macht für junge Leute Werbung, dann ist natürlich Social Media ganz klar. Und wenn man auf Social Media Werbung macht, ist es momentan entweder eine Story oder ein Reel. Und die sind beide gezwungenermaßen hochformat. Und eigentlich dem Trend nach auch ein Video. Weil halt wenn sich nichts bewegt, dann übersieht man das und tappt dann halt weiter oder scrollt man weiter“ (Interviewer 3, personal communication, December 14, 2023).

In addition to the demographic details, Interviewer 3 highlights the most common patterns on social media at the moment, which mainly employ vertical videos because still images don't seem to be very appealing (Interviewer 3, personal communication, December 14, 2023).

Approaches to Remember

Interviewer 2 brings attention to the generational differences in preferences in the ever-changing world of video content, noting that younger audiences are more likely to choose vertical videos than older audiences, who may incline toward landscape types. This finding highlights how important it is to modify content according to the target audience's demographics, connect specific product groups to certain video formats, and take into consideration the message a company wants to gain attention over (Interviewer 2, personal communication, December 13, 2023).

“I think definitely the older generations are more, growing to like the landscape stuff. And if they have something vertical or landscape that they don't really care [...] if they post something online, [...] if it's vertical and horizontal, they just post it [...]” (Interviewer 2, personal communication, December 13, 2023).

Introducing 360-degree videos and GoPro footage are two successful examples of vertical videos that showcase the usefulness of vertical video formats. It is advised to make brief videos - less than thirty seconds - with the most impactful material appearing in the first three to five seconds. Adapting to current trends is highlighted as a suggested strategy for businesses looking to stay relevant in the ever-changing world of digital content creation, particularly on platforms like Instagram and TikTok (Interviewer 3, personal communication, December 14, 2023).

Managing Difficulties with Social Media Videos

It is essential for content creators to manage the difficulties caused by popular trends. In order to capture the interest of the audience, content creators must recognize the need to adjust to changing trends and create a careful balance between text and visual aspects. Advertising companies are advised to adjust to social media trends, with a focus on vertical videos targeted at younger audiences. It becomes essential to create unique and specialized content in order to stand out and connect with the target audience, which calls for knowledge of platform-specific specifications. The interviewees mentioned the ever-changing social media platforms which becomes a challenge. The constantly developing nature of trends, changing user preferences, and the effect of platform modifications on content creation are topics of open discussion among different creators. Creators struggle to keep in sync with the constantly shifting trends and preferences of the digital media of platforms, where every part contributes to the overall

story. Because the industry moves quickly, it's important to keep an eye on emerging changes in trends and technology (Interviewer 1-3, personal communication, December 2023).

Future Trends and Innovations

As the world of digital content continues to change, speculation has been raised about potential developments like new technology and cameras created specifically for vertical video. This move toward specialist gear proposes that the industry needs to be dynamic and that there is a constant need for tools that are specifically designed to fulfill the needs of creating vertical videos (Interviewer 1-3, personal communication, December 2023).

In the future, there may be a shift in perspective as mobile video production becomes more popular and could even compete with regular cameras for some kinds of content. Seeing this trend, content producers need to adjust to the new tools and preferences of their audience and prepare for a significant change in content production techniques. Companies are expected to invest more in campaigns designed for the vertical format as a result of their acceptance of the ever-changing nature of social media trends. It's predicted that vertical video will find its way into every aspect of daily life, possibly even reaching billboards and more extensive campaigns. Regarding film festivals, movie theatres, and conventional cinematic experiences, the coexistence of vertical and horizontal videos in the film industry cannot be precluded (Interviewer 1-3, personal communication, December 2023).

Views regarding the possible longevity of vertical video emphasize the significance of having multiple forms that perform multiple purposes at the same time. Understanding the engagement and viewing patterns linked to various video formats highlights the need of taking strategies seriously when creating content. Confusion still exists, regarding potential new video formats, considering devices such as the Apple Watch and the potential for videos for advanced devices like smart glasses. In an ever-evolving digital landscape, this uncertainty highlights the need for adaptable tools and templates that simplify the video creation process (Interviewer 1-3, personal communication, December 2023).

Everyone of the three interviewed persons expects that drawing attention would become more difficult in the future which requires outstanding and creative content. It is essential to stay updated on trends, highlighting the constant requirement for adaptability in response to shifting audience preferences and technology advancements (Interviewer 1-3, personal communication, December 2023).

VII. Interpretation and Future Research Directions

The results of the interviews shows the complex relationship between the technical challenges of creating vertical videos on mobile devices and their impact on consumer engagement, brand attitudes and content preferences. In particular, the rise of TikTok and adaptive changes to Instagram formats have fueled the growth of vertical video, especially on platforms such as TikTok, Instagram, Snapchat and YouTube.

Technical challenges have been identified in the production of vertical videos, such as the need to seamlessly adapt to different social media formats and differences in pixel width on mobile devices. These challenges impact the overall effectiveness of mobile vertical video content to engage audiences. The study highlights the importance of short, visually appealing content that is suitable for the vertical frame and has a direct impact on viewer engagement and content preferences.

Human visual perception was not discussed in any of the interviews, but was mentioned in the literature section above. Although people read from left to right, vertical videos do not fit with our more horizontal field of vision. The fact that we are increasingly using smartphones with their vertical screens in our lives could be related to the current young generation and their daily habits.

In addition, the preferences of different generations underscore the need for companies to adapt their content strategies to their target audience. Successful examples of vertical videos, including 360-degree videos and GoPro footage, demonstrate effective content strategies that could resonate well with viewers.

While the study notes that the lack of established standards and resistance from traditional filmmakers makes it difficult to gain consistent approval for vertical video, it also emphasizes the need for flexibility, attention to detail and creative content production in the ever-evolving environment of vertical video content.

In summary, the study provides useful expert insight into the complex interplay between the technical challenges of creating vertical video for mobile and its tangible impact on consumer reactions, engagement with brands and content preferences.

This research paper opens up potential directions for further investigation. For instance, a potential template and set of guidelines may be quite beneficial to content creators. Technological advancements have the potential to completely transform the effectiveness and quality of vertical video production, particularly with reference to specialized tools and cameras. It is important to research how mobile video production affects conventional cameras in order to comprehend how the business is developing and how content creators' preferences are evolving.

Another attracting direction is the study of human visual perception in the context of vertical video, particularly given the predominantly horizontal field of view and the prevalence of vertical screens among the younger generation. In addition, establishing industry standards and guidelines for vertical video creation provides an opportunity to address the challenges faced by content creators and achieve wider adoption. In addition, examining the longevity and evolution of vertical video provides insight into future trends, user preferences and the lasting impact of this format on digital content creation. Finally, exploring how vertical video can be integrated into larger campaigns and large-scale advertising efforts, including billboards, will provide valuable insights into the challenges and benefits of vertical video.

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